

# MODELS OF THE TRAPPED RADIATION ENVIRONMENT

Volume III: Electrons at

Synchronous Altitudes

VETTE, LUCERO, AND WRIGHT

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# MODELS OF THE TRAPPED RADIATION ENVIRONMENT

## Volume III: Electrons at

## Synchronous Altitudes

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Aerospace Corporation

A study sponsored by the National Aeronautics and Space Administration and the United States Air Force and prepared under Air Force contract by Aerospace Corporation, El Segundo, California.



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## PREFACE

A program sponsored jointly by the National Aeronautics and Space Administration (Defense Purchase Request W-11, 683) and the United States Air Force (Contract AF 04(695)-469) has been in progress under the direction of Dr. Vette for the purpose of defining a model of the radiation environment of the earth. Of special interest to space systems planners and spacecraft engineers is the near-earth region of the inner radiation belts and the earth synchronous orbit at 19,300 n. miles. In Volume I and II of NASA SP-3024, the model environment was given for the lower altitude region where trapping is relatively stable and changes in radiation fluxes occur only slowly and are generally small.

The position of the synchronous orbit is near the boundary of stable trapping and the particle fluxes vary through several orders of magnitude. At this time it is impossible to construct a model environment for this region of space which presents fully all temporal changes in both energy spectra and intensities of the trapped electrons. In order to present the actual situation, this compilation contains not only a statistical model of the environment (Fig. 105-109) but also most of the data (Fig. 1-104) from which this model was constructed. The user of this volume is urged to familiarize himself with the data section before using the model environment that is given. Otherwise, he is likely to apply this model incorrectly to the solution of the problem at hand.

As this effort continues, major improvements will be possible in the definition of the synchronous orbit environment. For the first time, extensive radiation measurements are being performed on board a synchronous orbit satellite (ATS-I) and further measurements are planned for future spacecraft of the ATS series.

This effort would not be possible without the assistance given to this project by the experimenters who made the measurements originally. All users of this environment will greatly appreciate their efforts. It is to be hoped that this enthusiastic support will continue and permit us to maintain an up-to-date model environment.

A. W. Schardt  
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## INTRODUCTION

With an increasing number of satellite missions being planned for synchronous orbits, there has been a great deal of interest in the radiation environment at altitudes around 19,300 n. miles. Unfortunately the satellites that have been successfully injected into synchronous orbits have not had particle radiation detectors as a part of their payload and the performance of the solar cell power arrays and some test cells on these satellites provide the only measure of long term integrated fluxes in this region. To satisfy all of the planning needs, including the possibility of extra vehicular activity, it is necessary to obtain information concerning detailed flux levels, energy spectra and time variations. This present work is confined to the construction and discussion of the trapped electron environment; trapped protons at these altitudes do not present much of a radiation hazard because their energies are below 1 MeV. The low energy proton environment AP5 which covers this energy range will be presented in the next volume of this series. Solar flare protons do represent a considerable hazard and summaries of the fluxes obtained over the 19th solar cycle have been summarized elsewhere (References 1, 2, 3). Unfortunately the geomagnetic cutoff energies at synchronous altitudes are not well known and no observations of solar flare protons have been made in this region. Because of this the differences between free space fluxes and those encountered by synchronous satellites for energies less than 30 MeV is somewhat indeterminate. Above 30 MeV the free space flux should be encountered.

In order to produce the trapped electron environment in sufficient detail to satisfy present needs, it has been necessary to examine the data obtained with particle detectors flown on highly elliptical satellites which pass through the proper region of space. Synchronous equatorial orbits lie on the magnetic shell given by  $L = 6.6$ . The McIlwain  $L$  parameter is calculated on the basis of magnetic fields measured on the earth's surface. It is well known that the interaction of the solar wind with the earth's magnetic field produces a cavity with an extended tail known as the magnetosphere in which the earth's field is contained (Reference 4). One result of this distorted cavity is that the magnetic fields calculated by surface measurements are in error above about three earth radii; consequently the standard  $B, L$  coordinate system used in trapped radiation breaks down in the synchronous region. Because most of the satellite data available to us are ordered in terms of  $B$  and  $L$ , we will use these coordinates to compare the data. However, as previously shown (for example, Reference 5), it is necessary to use local time as a variable to take into account the distorted cavity. For convenience  $B/B_0$  is used as the magnetic variable instead of  $B$ .

Data have been processed from Explorer 6, Explorer 12, Explorer 14, Imp A, OGO A, and ERS-17 to obtain a detailed sampling of various detectors covering the energy range between 40 keV and 2 MeV and the time range from near solar maximum through solar minimum. The specific data used in the environment are given in Table 1. Some Explorer 26 data at  $L = 6.5$  supplied by Drs. C. S. Roberts and W. L. Brown of Bell Telephone Laboratories have also been examined

Table 1  
Data Used in Making AE3 Environment.

Experimental Group	Satellite	Data Time Period	Type of Measurement	Nominal Energy Range	Source of Data
STL (now TRW Systems) Farley - Rosen - Saunders	Explorer 6 1959 $\Delta 1$	8/7/59 - 9/10/59	Omnidirectional Scintillation Counter	> 0.5 MeV	Orbit ephemeris and some plots of counting rate versus time obtained from National Space Science Data Center. Additional counting rate plots obtained from Reference 11
State University of Iowa Frank - Van Allen	Explorer 12 1961 <b>T</b>	8/17/61 - 12/5/61	Omnidirectional 302 Geiger	> 1.9 MeV	Computer print outs of de- tector counting rates and necessary coordinates ob- tained from Frank
	Explorer 14 1962 B $\Gamma$ 1	10/4/62 - 8/5/63	Omnidirectional 213 Geiger Averaged over Spin	> 40 keV	Computer print outs of de- tector counting rates and necessary coordinates ob- tained from Frank
			Omnidirectional 213 Geiger Averaged over Spin	> 230 keV	
			Omnidirectional 302 Geiger	> 1.9 MeV	
University of California at Berkeley	IMP A 1963 48A	11/27/63 - 5/27/64	Omnidirectional Scatter 213 Geiger Averaged over Spin	> 45 keV	Computer print outs of de- tector counting rates and necessary coordinates ob- tained from Anderson and Lin
			Omnidirectional Ionization Chamber	> 1.2 MeV	
University of Minnesota Winckler - Pfitzer - Kane	OGO A 1964 54A	9/21/64 6/20/65	Directional Magnetic Spectrometer Five Energy Channels	50 - 120 keV 120 - 290 keV 290 - 690 keV 690 - 1700 keV 1700 - 4000 keV	Directional fluxes at selected L values and necessary co- ordinates obtained from Pfitzer
		9/13/64 - 10/26/65	Omnidirectional Ionization Chamber	> 700 keV	Detector counting rates at se- lected L values and necessary coordinates obtained from Kane
Aerospace Corporation Vette	ERS 17 1965 58C	7/20/65 11/3/65	Omnidirectional Three 6213 Geigers Semi Directional Scintillation Counter Omnidirectional Solid State Detector	> 40 keV  > 100 keV  > 400 keV	Plots of detector counting rates versus time and neces- sary coordinates obtained from Vette

but were not received in time to be processed in the manner described later. This detailed processing required the use of the reduced satellite data merged with the satellite ephemeris or with the proper variables. The cooperation of Dr. L. A. Frank, Dr. K. A. Anderson, R. P. Lin, K. A. Pfizter, and S. R. Kane in providing data, much of which is unpublished, in the proper form is greatly appreciated and has made the construction of this environment possible. The model environment is confined to  $L = 6.6$ ;  $B/B_0$  and local time variations as well as the energy spectrum are presented. The time variations are discussed in terms of a solar cycle variation, occasional 27-day variations and in a completely statistical way. Since the elliptical satellites sample the  $L = 6.6$  shell twice each orbit, the time between samples varies from three hours up to four days. It is shown that if one treats a large number of these samples as independent events, the logarithm of the flux displays a Gaussian distribution in which the standard deviation increases with energy.

The construction of the model environment will now be discussed; both graphical and analytical representations are given. In the future it is planned to process the whole outer zone in a similar manner if this approach proves to be useful.

## CHARACTER OF OUTER ZONE TIME VARIATIONS

Before presenting the data in the synchronous region the expected behavior in terms of outer zone measurements made with satellites that do not reach the proper altitudes are discussed. These lower altitude satellites provide a more rapid time sampling of the outer zone. Since the dominant feature of outer zone electrons is the variation of flux levels by about two orders of magnitude, it is important to understand the character of the time fluctuations. In that way the coarse time sampling in the synchronous region provided by the highly elliptical satellites can be interpreted better for our purposes.

The Explorer 26 satellite spends most of its time sampling the  $L = 5.0$  shell, which is near the heart of the outer zone. The behavior of 0.5 MeV electron fluxes over a 250 day period is shown in Figure 1 (Reference 6). One sees that the fluxes increase by two to three orders of magnitude and exhibit an exponential decay with time, particularly at  $L = 4.0$ . At  $L = 5.0$  there is much more structure in the time profile but the dominant feature of increase and decay persist. A reference to the  $K_p$  index shown in the top of the figure will reveal that each large flux increase is accompanied by an increase or spikiness in  $K_p$ . At the onset of some of these events, one sees an initial decrease in flux with a relatively rapid rise. The event produced by the large magnetic storm on April 18, 1965 has been studied in great detail by Explorer 26 experimenters. A more detailed picture of the April 18 increase is shown in Figure 2, as presented by Brown and Roberts (Reference 7). This represents, in our opinion, about the maximum rate of increase of the various energy particles near the geomagnetic equator in the stable trapping region. An examination of the ERS-17 data reveals no increases of any consequence in the fraction of a second to one minute time period at synchronous altitudes. Explorer 12 and 14 data also show no increases in one minute time intervals. (There is one exception in the Explorer 14 data which will be discussed later.) There are examples of large flux changes in less than a minute at low altitudes near  $L = 6.6$  (Reference 8), but we are concerned here only with near equatorial phenomena.



In a further analysis of Explorer 15 electron fluxes  $>0.5$  MeV, McIlwain (Reference 6) has shown that some of the gross features of the fine time structure at  $L = 3.6$  and  $3.8$  follow the  $D_{st}$  time structure and therefore can be interpreted as adiabatic effects. These results are illustrated in Figure 3. A similar comparison is made later for data at  $L = 6.6$  which do not track  $D_{st}$  well. However, it is expected that currents in the boundary of the magnetosphere will become important at greater distances and one infers from Figure 1 that the time structure becomes more complex as one measures farther out in the magnetosphere.

Another time feature, noted by Williams (Reference 9), is a 27-day periodicity in outer zone fluxes. Examples of this are shown in Figure 4. An examination of Figure 1 does not reveal any persistent 27-day effect. As discussed later, Explorer 14 data showed a feature with a 27-day period throughout its lifetime at  $L = 6.6$  but data in other time periods do not; consequently, 27-day variations are important but are not always present.

No detailed work has been done previously to examine the outer zone flux levels as a function of solar cycle. This is difficult because the position of the maximum flux varies by two earth radii and the intensities fluctuate by several orders of magnitude in several weeks time. Van Allen and Frank (Reference 10) have shown that the inner edge of the outer belt has moved outward from  $L = 2.2$  in mid 1958 to  $L = 3.0$  in late 1964.

## SATELLITE DATA STUDIED TO MAKE THE ENVIRONMENT

Since some of the data processed are unpublished, brief descriptions of both the data and the instruments used to make the measurements follow. No attempt is made to give a detailed description but important parameters are listed and the reader is referred to the literature where possible. An attempt has been made to study a fairly complete data sample but not all of the data taken by satellites passing through the synchronous region have been processed. A compromise between completeness and expediency has been made.

The STL scintillation counter data from Explorer 6 are the earliest data that were used. The most recent efficiency curve for this detector, shown in Figure 5, has been published by Rosen (Reference 11) and is due to Farley (Reference 12). Since the proton threshold for this detector was 2 MeV, the counting rate in the synchronous region is considered to be due entirely to electrons. A threshold energy of 500 keV was determined to be the least sensitive to spectral changes and the flux above this energy was obtained by multiplying the corrected counting rates by 6.25.

The 302 Geiger tubes flown on Explorers 12 and 14 supplied the major data on high energy electrons. A description of the Explorer 12 counter has been published by Freeman (Reference 13) and the efficiency curve given by O'Brien et al. (Reference 14). The description of the Explorer 14 detector complement, including the 302 Geiger tube, can be found in Reference 15. Further work by Frank (Private Communication) has indicated the efficiency curve published in Reference 14 is valid for both Explorer 12 and 14 counters. We have calculated the average efficiency of this detector using various exponential spectra with the threshold energy as a parameter. These results

are shown in Figure 6. A threshold energy of 1.9 MeV was chosen instead of the 1.6 MeV value used by the Iowa group because the variation with spectral index is less. Since a multiplying factor of 10 was used (the best single value for  $190 \text{ keV} < E_0 < 600 \text{ keV}$ ) to convert corrected counting rate to flux, the flux values will be the same as those previously published; the only difference is the assignment of threshold energy. As is shown later, the energy spectrum at synchronous approximates an exponential one with an  $E_0$  around 215 keV. Therefore the difference in threshold energy for this detector is quite significant from an environment standpoint.

The data from the 213A and 213B Geiger tubes flown on Explorer 14 by the Iowa group were also processed. Using the efficiency versus energy curve for the 213A, it is concluded that a 40 keV threshold energy is the least sensitive to spectral changes. A conversion factor of  $6.28 \times 10^3$  has been used to convert the corrected counting rates to flux. The efficiency factor of the 213B Geiger tube was supplied in terms of power law spectra and a 230 keV threshold energy by Frank (Private Communication) as:

$$J(>E) \sim E^{-n}$$

$$n = 0 \quad 2 \times 10^{-3} \text{ cm}^2\text{-ster} .$$

$$n = 1 \quad 8 \times 10^{-4} \text{ cm}^2\text{-ster} .$$

$$n = 2 \quad 3 \times 10^{-4} \text{ cm}^2\text{-ster} .$$

$$n = 3 \quad 10^{-4} \text{ cm}^2\text{-ster} .$$

On the basis of the energy spectrum around 230 keV as determined by all the data, it was found that a power law exponent of 1 is most appropriate. The conversion factor from counting rate to flux above 230 keV employed was  $1.57 \times 10^4$ .

The Imp A data were obtained with the two instruments of Dr. K. A. Anderson and collaborators. The Beta counter was a 213 Geiger tube which detected electrons scattered off a gold foil and had an effective threshold energy of 45 keV. A description of this instrument has been given by Anderson et al (Reference 16); their quoted factor of  $7000 \text{ cm}^{-2}$  was used to convert counting rate to flux. The ionization chamber was a spherical shell of varying wall size with a thick stem. The shell had a 3 inch OD and was filled with Argon to a pressure of seven atmospheres at STP. The effective shielding, including chamber walls, was about  $0.33 - 0.41 \text{ gm/cm}^2$  of aluminum except at the stem. The effective threshold energy for electrons is estimated to be about 1.2 MeV. The conversion from counting rate to dose rate was done using the calibration curve shown in Figure 7 which was provided by Anderson (Private Communication).

The University of Minnesota experiments on OGO A were processed to obtain data in the mid 1964 - mid 1965 time period. A magnetic spectrometer provided directional measurements in the five energy channels given in Table 1. The equatorial pitch angle and local time for each data

point were provided with the data. An ionization chamber, constructed from a 7 inch diameter aluminum sphere with a wall thickness of 0.035 inch was filled to a pressure of 50 lb/in<sup>2</sup>. Since this device was mounted on a boom, there was very little shielding from the spacecraft itself. The calibration curve provided by Kane (Private Communication) is shown in Figure 8.

Because the efficiency of the two ion chambers as a function of energy was not available, the chamber data has been used to study local time and  $B/B_0$  variations but not to determine absolute flux levels.

Finally, we have used some of our own data obtained from three detectors on the ERS-17 satellite (Reference 17). A 1 mm cube lithium-drifted solid state detector covered by a 10 mil thick, aluminum, hemispherical dome provided a  $2\pi$  detector which measured electrons greater than 400 keV. The average efficiency for various thresholds calculated with exponential spectra is shown in Figure 9. Three Eon 6213 Geiger tubes with selected 1.2 mg/cm<sup>2</sup> mica windows were mounted orthogonal to each other and the summed output of these detectors provided a measurement of the omnidirectional flux of electrons with energies greater than 40 keV. A 1 mm thick plastic disk mounted on a photomultiplier tube and placed behind a 45° cone angle collimator provided measurements of electrons greater than 100 keV.

## **$B/B_0$ AND LOCAL TIME VARIATIONS**

In order to examine the detailed behavior of the electrons in the synchronous region, data were collected that covered the L range from 5 to 8 which has been interpolated to  $L = 6.5$  or  $6.6$ . No distinction is made between 6.5 and 6.6 except to indicate in the figures the exact L value to which the data were interpolated. For all the data except OGO, data points were available as a function of time. This time between points varied from one minute for Explorer 14 to five minutes for Imp A, so the interpolation to the proper L shell should be accurate. The OGO data were provided on the L shells 5.0, 6.0, 7.0 and 8.0. Using these points the data were interpolated to  $L = 6.5$  using a parabolic fit when possible.

From previous publications of outer zone data, for example Reference 5, it was apparent that local time variations were important. The  $B/B_0$  variations have not been as clearly demonstrated but there was evidence of flux decrease as B increased along an L shell. Because the time variation of fluxes is the most dominant feature, some statistical quantity such as the median or mean value must be used to study local time and  $B/B_0$  behavior. These effects will be demonstrated at  $L = 6.5 - 6.6$  using median values.

The number of data points available for each detector are given in Table 2. In order to average out the large time variations and obtain a meaningful median value, it is necessary to take a large enough sample. Consequently the local time and  $B/B_0$  variations were studied separately employing an iterative procedure to obtain the final variations. The procedure involved the following steps for a given measurement:

1. Sort the data into three-hour local time intervals.

2. Obtain the median value for each interval.
3. Draw a smooth first trial local time variation from the histogram obtained in Step 2.
4. Using the results of Step 3, correct all the data to local noon and make a sort into  $B/B_0$  intervals to obtain the median values.
5. Draw a smooth second trial  $B/B_0$  variation from the histogram obtained in Step 4. (The first trial  $B/B_0$  variation is obtained neglecting local time variations.)
6. Using the results of Step 5, correct the data to the equator and proceed to find the second trial local time variation.
7. Find successive trial  $B/B_0$  and local time variations by the same methods.

The results of this procedure applied to the data are shown in Figures 10 through 22. The solid curves show the first trial variations and dashed curves represent the final trial variations. The number of data points in each interval is listed near the bottom of the graph. Because of the small number of points in each interval, a third iteration does not improve the smoothness of the histograms. From these figures it is concluded that the data from the various satellites show the same trends although they cover different time periods. One should not necessarily expect the uncorrected data to show the same pattern because the distribution of the samples in regard to local time and  $B/B_0$  is different for each satellite. The smoothed interpretation of the  $B/B_0$  variation is shown in Figure 23 and the local time variation in Figure 24; no attempt has been made to make the slope continuous at 2400 hours. Although the 40 keV fluxes fall off slower with  $B/B_0$  than do the higher energy ones, all data above 230 keV show the same variation. This would say that energy spectrum is independent of  $B$  except at very low energy. Analysis of the OGO spectrometer

Table 2

Number of Data Points at  $L = 6.5$  or  $6.6$ .

Satellite	Instrument	No. of Pts.
Explorer 6	Scintillation Counter	46
Explorer 12	302 Geiger	181
Explorer 14	213A Geiger	272
	213B Geiger	272
	302 Geiger	272
Imp A	Beta Counter	89
	Ionization Chamber	83
OGO A	Ionization Chamber	88
	Spectrometer Channel 1	40
	Spectrometer Channel 2	43
	Spectrometer Channel 3	45
	Spectrometer Channel 4	45
ERS-17	6213 Geigers	22
	Low Energy PM Tube	25
	Solid State Detector	25

confirms this result. The local time variation is clearly energy dependent. It is interesting that all the data show a peaking in the 6 - 9 local time interval rather than the 9 - 12 interval, particularly since measurements of the magnetospheric boundary show a symmetry near local noon (Reference 18). This variation was checked with other quantities such as the mean flux value and the mean of the logarithm of the flux and the same result was obtained.

## A STATISTICAL DESCRIPTION OF THE TIME VARIATIONS

From the standpoint of presenting a model environment, it is useful to have a concise way of describing the time variations. Clearly the causes of these variations are produced by events on the sun with subsequent changes in the interplanetary medium. Much detailed work has been done to show the relationship between outer zone trapped radiation fluxes and other geophysical parameters such as  $K_p$ ,  $D_{st}$ , solar wind mach number, solar wind density and the interplanetary magnetic field (References 6, 9, 13, 19). The two periodic effects associated with the sun are the 11-year solar cycle and the 27-day synodic rotation period. Both of these periods are apparent in geophysical phenomena. However, the occurrence of solar-geophysical events viewed over a large number of events exhibits a statistical nature.

We have considered each data point at  $L = 6.5 - 6.6$  as a sample of a distribution and have constructed the probability distribution function on this basis. Let us call  $F_i$  the value of the flux obtained on a given satellite pass; then we can estimate the mean flux by

$$M = \frac{1}{n} \sum_{i=1}^n F_i$$

for  $n$  points. It was found that the logarithm of the flux can be adequately represented by a Gaussian distribution. With  $\mu$  representing the mean of the logarithm of the flux then

$$\mu = \frac{1}{n} \sum_{i=1}^n \log F_i = \frac{1}{n} \log \left( \prod_{i=1}^n F_i \right) = \log \left( \prod_{i=1}^n F_i \right)^{1/n},$$

or the mean of the logarithm is the logarithm of the geometric mean of the sample. The standard deviation,  $\sigma$ , is given by

$$\sigma = \left[ \frac{1}{n-1} \sum_{i=1}^n (\log F_i - \mu)^2 \right]^{1/2}.$$

To illustrate the fact that  $\log F$  is normally distributed, the Explorer 12, Explorer 14 and Imp A data for  $B/B_0 \leq 1.5$  have been corrected to the equator and local noon using the variations derived

in the last section. The data points were then ordered by intensity and a cumulative distribution function was calculated by the formula

$$P(F > F_1) = \frac{\text{number of data points with flux above } F_1}{\text{total number of data points in the sample}} .$$

This empirical distribution function is shown in Figures 25 through 30 for the various data by the circled points. The gaussian fit was obtained by

$$P_g(Z > Z_1) = \int_{Z_1}^{\infty} \frac{1}{\sqrt{2\pi}\sigma} \left[ \exp - \left( \frac{x - \mu}{2\sigma} \right)^2 \right] dx ,$$

where  $\mu$  and  $\sigma$  were calculated by the formulas given above and  $Z = \log_{10} F$ . The Gaussian density shown in the figures was plotted from

$$P(Z) = \frac{1}{\sqrt{2\pi}\sigma} \exp \left[ - \left( \frac{Z - \mu}{2\sigma} \right)^2 \right] .$$

The probability distribution function for the flux itself can be written as

$$g(F) = \frac{\log_{10} e}{\sqrt{2\pi}\sigma} \frac{1}{F} \exp \left[ - \left( \frac{\log_{10} F - \mu}{2\sigma} \right)^2 \right] .$$

The  $\sigma$  energy dependent and the agreement between different sets of data with the same energy is very good. Previous presentations of outer zone data have shown qualitatively that higher energy electrons show larger time variations than lower energy ones. The variation of  $\sigma$  with energy demonstrates this behavior in a more quantitative sense. The data were examined without correcting for local time or  $B/B_0$  variations and the same result was obtained, namely  $\log F$  is approximately normally distributed.

## SPECTRAL VARIATION

The detailed study of the energy spectrum has been carried out using the OGO A magnetic spectrometer data. Examples of the OGO data used have been presented previously (References 20, 21, 22, 23). Except for the thin window Geiger tubes used to measure 40 - 45 keV electrons, the effective energy thresholds of the various detectors examined for this study depend on the spectrum. This fact coupled with the large time variations of the flux means that little detailed spectral information can be obtained with threshold detectors. The magnetic spectrometer has a much better energy definition. However, the energy windows of the spectrometer are too wide to obtain a good differential spectrum in the synchronous region. Both a power law and an exponential

integral spectrum,

$$N_p(>E) = D_p E^{-P}$$

and

$$N_e(>E) = D_e \exp(-E/E_0) ,$$

have been assumed over a limited energy range in order to interpret the spectrometer data. Let the energy windows of the instrument be defined by  $E_1$ ,  $E_2$ ,  $E_3$ ,  $E_4$ , and  $E_5$ . The first channel provides a measure of electrons with energies lying between  $E_1$  and  $E_2$ , namely  $N(>E_1) - N(>E_2)$ . By taking the ratio of the first two channels and assuming the spectral form holds over the energy range  $E_1$  to  $E_3$ , one obtains

$$\frac{N(>E_1) - N(>E_2)}{N(>E_2) - N(>E_3)} = \frac{E_1^{-P} - E_2^{-P}}{E_2^{-P} - E_3^{-P}} = \frac{\exp(-E_1/E_0) - \exp(-E_2/E_0)}{\exp(-E_2/E_0) - \exp(-E_3/E_0)} .$$

Since the left hand side is known, the value of  $P$  and  $E_0$  can be determined. Once these are known the value of  $D_p$  and  $D_e$  can readily be obtained. One can continue this process with the other channels to obtain the values of spectral parameters in the different energy ranges. It was found that the power law description requires negative values of  $P$  in many instances and varies greatly from one energy interval to the next. The exponential form of the spectrum seems to be much better; a reasonable value of  $E_0$  is obtained for all data points and the variation with energy is not extreme. The statistical variation of  $E_0$  is shown in Figure 31 using the methods described earlier. There were not enough data in the 1.7 - 4.0 MeV channel to be useful. It can be seen that the spectrum does vary considerably. Using the time averaged values of the spectrometer data, we have determined the parameters  $D_e$  and  $E_0$  and have calculated the values of the directional spectrum at the energies  $E_1$ ,  $E_2$ ,  $E_3$ , and  $E_4$ . These results are shown in Figure 32 where the two points shown at 120 and 290 keV result from the two different values of  $D_e$  and  $E_0$  obtained by taking the ratio of adjacent channels.

By adding up the spectrometer channels an integral flux can be obtained since the highest channel has a negligible contribution. The results are presented in Figure 33 as cumulative probabilities. The integral spectrum for the median flux is shown on a log-log and semi-log plot in Figure 34. It should be emphasized that all the results shown in this section are uncorrected for  $B/B_0$  and local time. The results of these corrections to the spectrometer data will be given in the next section. We have examined the dependence of  $E_0$  on  $B/B_0$  and found no effect. The number of sample points are small so the results are not very definitive; however, this result is in agreement with the previous observation that the  $B/B_0$  variation of the flux is independent of energy except at low energies. The local time dependence of  $E_0$  could not be studied because of the small sample size.

## SOLAR VARIATIONS

It has been demonstrated that the data from various satellites averaged over time have similar  $B/B_0$  and local time variations. In order to compare quantitatively the different measurements and to study the temporal effects, it is appropriate to remove this average behavior. All the measurements have been converted to local noon at the geomagnetic equator by means of the functions shown in Figure 23 and 24. The corrected fluxes versus time for all of the data except the magnetic spectrometer are shown in Figures 35 through 93. The Explorer 6 data (Figure 35), the OGO ion chamber data (Figure 91), and the ERS-17 data (Figures 92, 93 and 94) are plotted for the length of time of the available data. The other data are plotted in 27-day time increments so that solar rotation variations will be apparent. The sum of the eight 3-hour  $K_p$  indices are shown at the bottom of the graph; arrows indicate the start of a geomagnetic disturbance with a sudden commencement while the thick lines indicate a disturbance without sudden commencement.

The increase of flux observed on 1 September 1961 shown in Figure 36 can be seen reappearing about 27 days later in Figure 37. Solar protons from a class three flare were observed by Explorer 12 beginning at 2230 U.T. on September 28 (Reference 24), which was well after the enhancement started. The increases seen in Figures 38 and 39 occur at the wrong time to be related to any 27-day effects. The most striking example of a 27-day recurring feature can be seen in the  $>1.9$  MeV fluxes in Figures 65 through 76 where an enhancement appears about seven days into the solar rotation and lasts for six to eight days. Only in Figure 69 where there are no data and in Figure 74 is this flux increase not visible. An examination of the  $>40$  keV fluxes during this same period (Figures 41 through 52) reveals that this feature is not readily apparent. There is some evidence from this same feature at later times as seen in Figures 84 and 85. This later time is the same period in which Williams (Reference 9) noted a 27-day periodicity in low altitude outer zone fluxes. The sector structure of the interplanetary magnetic field observed by Ness and Wilcox (Reference 25) has been shown earlier in Figure 4; the relationship between interplanetary conditions and flux variations at that time have been discussed by Williams. The beginning of the flux enhancement occurs with the arrival of a transition from a field toward the sun (-) to one away from the sun (+). During this positive sector the solar wind mach number increased considerably. If one translates the same sector pattern backward in time, the same positive sector, which starts on the 7th day in the solar rotation, is the one that brackets the enhancements shown in Figures 65 through 76. It is interesting that the recurrent low energy ( $\sim 3$  MeV) solar protons streams seen by McDonald and co-workers (Reference 26) on Explorer 14 occurred at the same time as the enhancement of  $>1.9$  MeV electron fluxes shown here for  $L = 6.6$ . The proton results are shown in Figure 95. Notice that the recurrent stream is absent around May 28 (solar rotation 1777) and this is the only solar rotation where the enhanced feature is not seen in the Explorer 14 data. On Explorer 12 Bryant et al (Reference 27) saw  $\sim 3$  MeV protons on October 27, 1961 and December 1, 1961 which were not associated with flares. Enhanced electron flux levels for these periods can be seen in Figures 38 and 39. Mariner 2 provided measurements of the solar wind during the first few solar rotations of the Explorer 14 data (Reference 28). These results are given in Figure 96. There seems to be little doubt that electron fluxes at synchronous altitudes, particularly the high energy ones, are affected by conditions on the sun. The fact that the energetic electrons show a



greater response than the low energy ones suggests that distortions of the geomagnetic cavity are responsible for the changes. The steeper spatial gradient of the energetic electrons would make them a more sensitive indicator. However, it should be made clear this idea has not been investigated quantitatively; this analysis must await processing the whole outer zone to obtain average flux and energy spectra as a function of radial distance.

In order to demonstrate the 27-day effect in another way, the  $>1.9$  MeV flux is shown as a function of days in the solar rotation averaged over the entire time period of the data in Figure 97. The Explorer 14 data show the enhanced feature we have been discussing. It is clear from seeing the Explorer 12 data that 27-day effects are not permanent features but occur from time to time with different degrees of persistency similar to the M regions of Bartels (Reference 30). In fact it is becoming more apparent that some of the electron flux variations are a different measure of the same solar phenomena. A similar solar rotation plot is made for the  $>40 - 45$  MeV data of Explorer 14 and Imp A and is shown in Figure 98. Some evidence of the Explorer 14 enhanced region around eight days in the rotation is apparent; however, this feature does not last as long as it does for the  $>1.9$  MeV flux.

An examination of the low energy data shown in Figures 41 through 52 and 77 through 83 reveal a few data points which are considerably below all the rest. Because the low energy fluxes show less variability than the more energetic ones, these few cases stand out more. In each case except the one on June 16, 1963 (a magnetic storm occurred then) the data were taken at least  $20^\circ$  off the equator with a local time within three hours of local midnight. Since we have corrected for the average local time and  $B/B_0$  behavior, these few points demonstrate considerable departure from the average. The fact that the satellite was near local midnight suggests that these points were taken outside the normal stable trapping region; Anderson (Reference 29) has discussed this region, which is called the skirt, in relation to the whole magnetosphere. The Explorer 6 data show several cases where the boundary of trapping is inside  $L = 6.6$  (Reference 11) and the flux levels fall practically to cosmic ray levels. Frank (Reference 31) has reported a catastrophic variation of electron fluxes on December 20, 1962 as observed with Explorer 14 at  $L \approx 5$  and geomagnetic latitude of approximately  $30^\circ$ . This observation was made at a local time around 2200 hours and could represent a case where the stable trapping boundary moved past the satellite. The radial profiles for that pass are shown in Figure 99; notice the  $>40$  keV fluxes drop to  $\sim 10^5$  electrons/cm<sup>2</sup>-sec which is a typical level for the skirt region.

The rapid increase and exponential decay of fluxes that is so clear in Figure 1 is not apparent at  $L = 6.6$  in the time plots. There appear to be rapid increases and decreases; some decreases are seen at the time of magnetic storms with a subsequent increase. However, there are examples of no change following magnetic activity and other examples of changes without magnetic activity. It is difficult to see a persistent exponential decay following an increase. A comparison between  $D_{st}$  and the  $>1.9$  MeV flux levels is shown for one 27-day period in Figure 100. Although the time sampling provided by the satellite data is very coarse, the changes do not seem to follow  $D_{st}$  very closely. The time behavior at  $L = 6.6$  appears to be much less correlated with  $D_{st}$  than the behavior reported by McIlwain (Reference 6) for  $L = 3.6 - 3.8$ . Undoubtedly  $D_{st}$  does not

provide a good measure of magnetic field variations at synchronous altitudes because currents in the boundary of the magnetosphere become important.

The flux changes over the solar cycle have been examined. The most directly comparable data are shown in Figures 101 and 102 where the average for each solar rotation at our reference point are plotted against solar rotation number. There is considerable scatter for each set of data from one rotation to the next. Differences of a factor of 2 between sets of data may not be significant because of errors in counter geometric factors, efficiency and energy threshold calculations. However the trend for both high and low energy fluxes is an increase as solar minimum is approached. All the data used are shown in Figure 103 as an average over the long time periods shown in the legend. It is remarkable that the data are so well ordered considering all of the factors involved and that the instantaneous flux varies by several orders of magnitude within a few weeks. A straight line has been drawn through the OGO spectrometer results to indicate a single exponential spectrum fits those data when they are converted to the equator at local noon. If one assumes no solar cycle effect, the data agree to within a factor of 3 at low energies and a factor of 6 at high energies. An exception is the >230 keV flux from Explorer 14. If the spectrum were steeper in that energy range during the lifetime of Explorer 14 than we used, this point could be raised. However, it seems difficult to raise it by more than a factor of 2 - 3. The ERS-17 data are lower than OGO A data but both represent the average over a small number of data points and the scatter shown in Figures 101 and 102 is greater than this. The Explorer 6 data were taken for a short time period during an active magnetic period and might be higher than a representative value for that time period. In conclusion, there seems to be no evidence for an increase in the trapped radiation flux levels at  $L = 6.6$  as solar maximum is approached; all the data show a decrease which may well be within the intercomparison accuracy of the various satellite measurements.

### THE EMPIRICAL MODEL AE3

On the basis of the data presented in the previous sections an empirical description of the electron environment AE3 is derived which is our best estimate of the fluxes to be encountered by satellites in synchronous equatorial or near equatorial orbits. To demonstrate the  $L$  variation in this region the Explorer 14 data near the equator have been time averaged and corrected to local noon. The results are shown in Figure 104.

The time averaged omnidirectional flux for energy greater than  $E$  is given by

$$J(>E, B/B_0, \Phi) = CA(\Phi) (B/B_0)^{-b} E^{N(\Phi)} e^{-E/E_0} \text{ (electrons/cm}^2\text{-sec) ,}$$

which is valid for energies greater than 10 keV. We have ignored the energy dependence of the  $B/B_0$  variation at low energies. The values of the various parameters are:

$$C = 9 \times 10^7 \text{ at solar minimum}$$

$$C = 4.5 \times 10^7 \text{ at solar maximum}$$

$$b = 0.625$$

$$E_0 = 0.215 \text{ MeV.}$$

The functions  $A(\Phi)$  and  $N(\Phi)$  are listed below:

$\Phi$	$A(\Phi)$	$N(\Phi)$	$\Phi$	$A(\Phi)$	$N(\Phi)$	$\Phi$	$A(\Phi)$	$N(\Phi)$
0	.0958	-.385	8	1.362	+.029	16	.495	-.113
1	.150	-.317	9	1.400	+.037	17	.409	-.145
2	.224	-.250	10	1.304	+.035	18	.335	-.178
3	.345	-.183	11	1.147	+.022	19	.279	-.212
4	.518	-.112	12	1.000	0	20	.223	-.247
5	.742	-.054	13	.857	-.024	21	.180	-.281
6	1.013	-.007	14	.723	-.052	22	.146	-.316
7	1.235	+.015	15	.604	-.081	23	.114	-.350

The estimated error in C is a factor of 2. The differential energy spectrum is given by

$$J(E, B/B_0, \Phi) = \left[ \frac{1}{E_0} - \frac{N(\Phi)}{E} \right] J(>E, B/B_0, \Phi) \text{ (electrons/cm}^2\text{-sec-MeV)}$$

The integral and differential fluxes for various values of the variables at solar minimum were computed and are presented in Table 3 (pages 18 through 67). The value of  $B/B_0$  is shown below the title. The local time in hours is the horizontal entry. The first column is the energy in MeV,  $J(*E)$  is the integral flux in electrons/cm<sup>2</sup>-sec, and  $J(E)$  is the differential flux in electrons/cm<sup>2</sup>-sec-MeV. A graph of the integral flux at the equator for various energies versus local time is given in Figures 105 and 106.

It is more useful to average these fluxes over local time since a synchronous satellite will constantly change in local time. These average fluxes  $\bar{J}(>E, B/B_0)$  and  $\bar{J}(E, B/B_0)$ , are presented in Table 4 (pages 68 through 69) for solar minimum. The units for the entries are the same as in Table 3. Plots of  $J(>E, B/B_0)$  are given in Figure 107.

In order to describe the environment in a statistical manner, the probability that the flux will exceed the level  $J_1$  is given as

$$P(J > J_1) = \frac{1}{\sqrt{2\pi}\sigma} \int_{\log_{10} J_1}^{\infty} \exp \left[ - \left( \frac{x - \mu}{\sqrt{2}\sigma} \right)^2 \right] dx ,$$

where

$$\sigma = 0.62 E^{0.2}$$

and

$$\mu = \log_{10} J_{\text{AVG}} - \frac{\sigma^2}{2 \log_{10} e} .$$

$J_{\text{AVG}}$  is the average value of the flux and may be any of the functions described previously in this section. This probability may alternately be interpreted as the fraction of the time that the flux exceeds the value  $J_1$ . Using  $J_{\text{AVG}}$  as the local time averaged flux at the equator, i.e.

$$J_{\text{AVG}} = \bar{J}(>E, B/B_0 = 1) ,$$

we have computed  $P(J > J_1)$  and show the results in Table 5 (pages 70 through 77). Graphs of these results are shown in Figures 108 and 109. For any mission with a duration in excess of several weeks, the average flux should be used. If one desires the flux at any randomly selected time, then  $P(J > J_1)$  is appropriate. From a study of the flux-time plots in the previous section it is apparent that the fluxes are well correlated over short time intervals. If one has a measure of the flux at time  $t$ , then this value is a good estimate of the expected flux for the next few hours.

The probability density for the flux is given by

$$p(J) = \frac{\log_{10} e}{\sqrt{2\pi}\sigma} \frac{1}{J} \exp \left[ - \left( \frac{\log_{10} J - \mu}{\sqrt{2}\sigma} \right)^2 \right]$$

and for the logarithm of the flux,  $Z = \log_{10} J$ , by

$$g(Z) = \frac{1}{\sqrt{2\pi}\sigma} \exp \left[ - \left( \frac{Z - \mu}{2\sigma} \right)^2 \right]$$

The available data and its relationship to solar-geophysical phenomena have been discussed in detail in the previous sections. There have been certain interpretations and simplifications made in order to present the model in useful forms. It is hoped that these forms will cover the range of uses for which the environment is needed.

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Table 3

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.00$ 

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	4.31E+07	1.86E+09	4.93E+07	1.79E+09	5.41E+07	1.60E+09	6.12E+07	1.40E+09	6.63E+07	1.05E+09
.02	3.15E+07	7.53E+08	3.78E+07	7.75E+08	4.34E+07	7.45E+08	5.15E+07	7.10E+08	5.85E+07	6.00E+08
.03	2.57E+07	4.50E+08	3.17E+07	4.63E+08	3.75E+07	4.86E+08	4.56E+07	4.90E+08	5.34E+07	4.48E+08
.04	2.20E+07	3.14E+08	2.76E+07	3.48E+08	3.33E+07	3.63E+08	4.13E+07	3.81E+08	4.93E+07	3.68E+08
.05	1.92E+07	2.38E+08	2.46E+07	2.70E+08	3.00E+07	2.90E+08	3.78E+07	3.15E+08	4.59E+07	3.17E+08
.10	1.17E+07	9.93E+07	1.56E+07	1.22E+08	2.00E+07	1.43E+08	2.64E+07	1.71E+08	3.37E+07	1.94E+08
.20	5.62E+06	3.49E+07	7.88E+06	4.92E+07	1.06E+07	6.24E+07	1.46E+07	8.14E+07	1.96E+07	1.02E+08
.30	3.02E+06	1.79E+07	4.35E+06	2.49E+07	6.00E+06	3.29E+07	8.52E+06	4.48E+07	1.17E+07	5.90E+07
.40	1.70E+06	9.53E+06	2.50E+06	1.36E+07	3.51E+06	1.85E+07	5.08E+06	2.59E+07	7.14E+06	3.52E+07
.50	9.78E+05	5.30E+06	1.46E+06	7.72E+06	2.08E+06	1.07E+07	3.06E+06	1.54E+07	4.38E+06	2.13E+07
.60	5.73E+05	3.03E+06	8.66E+05	4.49E+06	1.25E+06	6.33E+06	1.86E+06	9.22E+06	2.69E+06	1.30E+07
.70	3.39E+05	1.76E+06	5.18E+05	2.64E+06	7.55E+05	3.78E+06	1.14E+06	5.58E+06	1.66E+06	8.00E+06
.80	2.02E+05	1.04E+06	3.12E+05	1.57E+06	4.59E+05	2.28E+06	6.96E+05	3.40E+06	1.03E+06	4.93E+06
.90	1.21E+05	6.16E+05	1.89E+05	9.44E+05	2.80E+05	1.38E+06	4.28E+05	2.08E+06	6.38E+05	3.05E+06
1.00	7.32E+04	3.69E+05	1.15E+05	5.69E+05	1.71E+05	8.39E+05	2.64E+05	1.27E+06	3.96E+05	1.89E+06
1.10	4.43E+04	2.22E+05	6.98E+04	3.45E+05	1.05E+05	5.12E+05	1.63E+05	7.84E+05	2.46E+05	1.17E+06
1.20	2.69E+04	1.34E+05	4.27E+04	2.10E+05	6.45E+04	3.13E+05	1.01E+05	4.63E+05	1.53E+05	7.26E+05
1.30	1.64E+04	8.11E+04	2.61E+04	1.28E+05	3.97E+04	1.92E+05	6.22E+04	2.98E+05	9.52E+04	4.51E+05
1.40	1.00E+04	4.93E+04	1.60E+04	7.82E+04	2.45E+04	1.18E+05	3.86E+04	1.84E+05	5.93E+04	2.81E+05
1.50	6.12E+03	3.00E+04	9.85E+03	4.79E+04	1.51E+04	7.28E+04	2.39E+04	1.14E+05	3.70E+04	1.75E+05
1.60	3.75E+03	1.83E+04	6.06E+03	2.94E+04	9.34E+03	4.49E+04	1.48E+04	7.07E+04	2.30E+04	1.09E+05
1.70	2.30E+03	1.12E+04	3.73E+03	1.61E+04	5.78E+03	2.77E+04	9.22E+03	4.39E+04	1.44E+04	6.78E+04
1.80	1.44E+03	6.88E+03	2.30E+03	1.11E+04	3.58E+03	1.71E+04	5.73E+03	2.72E+04	8.97E+03	4.23E+04
1.90	8.69E+02	4.22E+03	1.42E+03	6.85E+03	2.22E+03	1.06E+04	3.56E+03	1.69E+04	5.60E+03	2.64E+04
2.00	5.35E+02	2.59E+03	8.79E+02	4.23E+03	1.37E+03	6.56E+03	2.22E+03	1.05E+04	3.50E+03	1.65E+04
2.50	4.80E+01	2.31E+02	8.00E+01	3.82E+02	1.27E+02	6.04E+02	2.08E+02	9.83E+02	3.33E+02	1.57E+03
3.00	4.37E+00	2.09E+01	7.38E+00	3.51E+01	1.19E+01	5.62E+01	1.97E+01	9.27E+01	3.19E+01	1.50E+02
3.50	4.03E+00	1.92E+00	6.87E+01	3.26E+00	1.12E+00	5.27E+00	1.87E+00	8.79E+00	3.07E+00	1.44E+01
4.00	3.74E+02	1.78E+01	6.43E+02	3.04E+01	1.05E+01	4.97E+01	1.78E+01	8.37E+01	2.95E+01	1.38E+00
5.00	3.28E+04	1.55E+03	5.72E+04	2.70E+03	9.52E+04	4.48E+03	1.63E+03	7.66E+03	2.75E+03	1.29E+02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.00$ 

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	7.27E+07	7.30E+08	7.99E+07	4.28E+08	8.80E+07	2.77E+08	9.10E+07	1.59E+08	9.02E+07	8.58E+07
.02	6.68F+07	4.91E+08	7.59E+07	3.80E+08	8.49E+07	3.31E+08	8.86E+07	2.84E+08	8.83E+07	2.47E+08
.03	6.24E+07	4.03E+08	7.22F+07	3.53E+08	8.15E+07	3.38E+08	8.56E+07	3.15E+08	8.56E+07	2.92E+08
.04	5.86F+07	3.52E+08	6.88F+07	3.32E+08	7.82E+07	3.34E+08	8.24E+07	3.24E+08	8.25E+07	3.08E+08
.05	5.53E+07	3.17E+08	6.56E+07	3.14E+08	7.49E+07	3.26E+08	7.92E+07	3.22E+08	7.94E+07	3.11E+08
.10	4.22E+07	2.19E+08	5.17F+07	2.44E+08	5.99E+07	2.70E+08	6.40E+07	2.79E+08	6.46E+07	2.77E+08
.20	2.55E+07	1.26E+08	3.23E+07	1.52F+08	3.80E+07	1.74E+08	4.10E+07	1.85E+08	4.16E+07	1.86E+08
.30	1.57F+07	7.58E+07	2.02E+07	9.46E+07	2.40E+07	1.11E+08	2.61E+07	1.19E+08	2.65E+07	1.20E+08
.40	9.70F+06	4.64E+07	1.27F+07	5.92F+07	1.52E+07	7.00E+07	1.65E+07	7.56E+07	1.68E+07	7.88E+07
.50	6.02E+06	2.87E+07	7.96E+06	3.71E+07	9.56F+06	4.42E+07	1.04E+07	4.79E+07	1.07E+07	4.88E+07
.60	3.75E+06	1.78E+07	4.99E+06	2.33F+07	6.02E+06	2.78E+07	6.59E+06	3.03E+07	6.75E+06	3.10E+07
.70	2.33F+06	1.10F+07	3.13E+06	1.46E+07	3.79E+06	1.75E+07	4.16E+06	1.92E+07	4.26E+06	1.96E+07
.80	1.45E+06	6.86E+06	1.97E+06	9.16E+06	2.38E+06	1.10E+07	2.62E+06	1.21E+07	2.69E+06	1.24E+07
.90	9.08F+05	4.28E+06	1.23E+06	5.75E+06	1.50F+06	6.95E+06	1.65E+06	7.63E+06	1.70E+06	7.82E+06
1.00	5.67E+05	2.67E+06	7.74E+05	3.61F+06	9.44E+05	4.37E+06	1.04E+06	4.81E+06	1.07E+06	4.94E+06
1.10	3.54E+05	1.66E+06	4.86E+05	2.26F+06	5.93F+05	2.75E+06	6.55E+05	3.03E+06	6.74E+05	3.11E+06
1.20	2.21F+05	1.04E+06	3.05F+05	1.42E+06	3.73E+05	1.73E+06	4.13E+05	1.91E+06	4.25E+05	1.96E+06
1.30	1.38F+05	6.50E+05	1.91F+05	8.91E+05	2.35E+05	1.09E+06	2.60F+05	1.20E+06	2.68E+05	1.24E+06
1.40	8.66F+04	4.06E+05	1.20F+05	5.59E+05	1.48E+05	6.85E+05	1.64E+05	7.57E+05	1.69E+05	7.79E+05
1.50	5.42F+04	2.54F+05	7.54F+04	3.51E+05	9.28F+04	4.31F+05	1.03E+05	4.77E+05	1.06E+05	4.91F+05
1.60	3.39F+04	1.59F+05	4.73F+04	2.20F+05	5.83F+04	2.71F+05	6.47E+04	3.00E+05	6.68F+04	3.09E+05
1.70	2.12F+04	9.95E+04	2.67E+04	1.38F+05	3.67E+04	1.70F+05	4.07E+04	1.89E+05	4.21F+04	1.95E+05
1.80	1.33E+04	6.22E+04	1.87E+04	8.69E+04	2.30F+04	1.07E+05	2.56E+04	1.19E+05	2.65E+04	1.23E+05
1.90	8.33F+03	3.90E+04	1.17F+04	5.45E+04	1.45F+04	6.73E+04	1.61F+04	7.47E+04	1.67E+04	7.71E+04
2.00	5.22F+03	2.44E+04	7.36E+03	3.42E+04	9.11E+03	4.23E+04	1.01F+04	4.70E+04	1.05E+04	4.86E+04
2.50	5.04F+02	2.35E+03	7.18F+02	3.34F+03	8.93E+02	4.15F+03	9.97E+02	4.63F+03	1.03E+03	4.79E+03
3.00	4.87E+01	2.28F+02	7.01F+01	3.26F+02	8.75E+01	4.07E+02	9.80F+01	4.55E+02	1.02E+02	4.71E+02
3.50	4.72F+00	2.20E+01	6.84E+00	3.18E+01	8.57F+00	3.98E+01	9.62F+00	4.47F+01	9.99E+00	4.63E+01
4.00	4.58F-01	2.14E+00	6.68F-01	3.11E+00	8.39E-01	3.90E+00	9.44E-01	4.38E+00	9.81E-01	4.55E+00
5.00	4.32F-03	2.02F-02	6.37F-03	2.96E-02	8.04F-03	3.74E-02	9.07E-03	4.21F-02	9.45E-03	4.39E-02



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.00$$

L.T. # E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	8.48E+07	9.76E+07	7.92E+07	1.94E+08	7.64E+07	3.55E+08	7.31E+07	5.15E+08	7.02E+07	6.91E+08
.02	8.29E+07	2.40E+08	7.67E+07	2.72E+08	7.29E+07	3.39E+08	6.86E+07	4.02E+08	6.46E+07	4.68E+08
.03	8.03E+07	2.80E+08	7.39E+07	2.89E+08	6.96E+07	3.24E+08	6.49E+07	3.54E+08	6.04E+07	3.85E+08
.04	7.74E+07	2.92E+08	7.10E+07	2.91E+08	6.64E+07	3.09E+08	6.15E+07	3.23E+08	5.68E+07	3.38E+08
.05	7.44E+07	2.94E+08	6.81E+07	2.87E+08	6.34E+07	2.95E+08	5.84E+07	3.00E+08	5.36E+07	3.05E+08
.10	6.04E+07	2.60E+08	5.48E+07	2.43E+08	5.02E+07	2.34E+08	4.55E+07	2.23E+08	4.09E+07	2.12E+08
.20	3.89E+07	1.74E+08	3.49E+07	1.59E+08	3.16E+07	1.47E+08	2.81E+07	1.34E+08	2.48E+07	1.22E+08
.30	2.48E+07	1.12E+08	2.21E+07	1.01E+08	1.98E+07	9.22E+07	1.75E+07	8.27E+07	1.53E+07	7.36E+07
.40	1.57E+07	7.17E+07	1.40E+07	6.43E+07	1.24E+07	5.79E+07	1.09E+07	5.14E+07	9.44E+06	4.51E+07
.50	9.95E+06	4.56E+07	8.83E+06	4.07E+07	7.82E+06	3.64E+07	6.81E+06	3.20E+07	5.86E+06	2.79E+07
.60	6.29E+06	2.89E+07	5.57E+06	2.57E+07	4.91E+06	2.28E+07	4.26E+06	2.00E+07	3.65E+06	1.73E+07
.70	3.97E+06	1.83E+07	3.51E+06	1.62E+07	3.08E+06	1.43E+07	2.67E+06	1.25E+07	2.27E+06	1.07E+07
.80	2.51E+06	1.15E+07	2.21E+06	1.02E+07	1.94E+06	9.01E+06	1.67E+06	7.81E+06	1.42E+06	6.68E+06
.90	1.58E+06	7.29E+06	1.39E+06	6.44E+06	1.22E+06	5.66E+06	1.05E+06	4.89E+06	8.84E+05	4.16E+06
1.00	9.96E+05	4.60E+06	8.76E+05	4.06E+06	7.64E+05	3.55E+06	6.55E+05	3.06E+06	5.52E+05	2.60E+06
1.10	6.28E+05	2.90E+06	5.52E+05	2.53E+06	4.80E+05	2.23E+06	4.10E+05	1.92E+06	3.45E+05	1.62E+06
1.20	3.96E+05	1.83E+06	3.47E+05	1.61E+06	3.01E+05	1.40E+06	2.57E+05	1.20E+06	2.16E+05	1.01E+06
1.30	2.49E+05	1.15E+06	2.18E+05	1.01E+06	1.89E+05	8.80E+05	1.61E+05	7.53E+05	1.35E+05	6.33E+05
1.40	1.57E+05	7.26E+05	1.37E+05	6.37E+05	1.19E+05	5.53E+05	1.01E+05	4.72E+05	8.45E+04	3.96E+05
1.50	9.88E+04	4.57E+05	8.64E+04	4.03E+05	7.47E+04	3.47E+05	6.34E+04	2.96E+05	5.29E+04	2.48E+05
1.60	6.22E+04	2.88E+05	5.43E+04	2.52E+05	4.69E+04	2.18E+05	3.97E+04	1.85E+05	3.31E+04	1.55E+05
1.70	3.91E+04	1.81E+05	3.42E+04	1.59E+05	2.95E+04	1.37E+05	2.49E+04	1.16E+05	2.07E+04	9.70E+04
1.80	2.46E+04	1.14E+05	2.15E+04	9.97E+04	1.85E+04	8.60E+04	1.56E+04	7.29E+04	1.30E+04	6.07E+04
1.90	1.55E+04	7.18E+04	1.35E+04	6.27E+04	1.16E+04	5.40E+04	9.80E+03	4.57E+04	8.12E+03	3.80E+04
2.00	9.75E+03	4.52E+04	8.50E+03	3.87E+04	7.30E+03	3.39E+04	6.15E+03	2.87E+04	5.09E+03	2.38E+04
2.50	9.60E+03	4.45E+04	8.35E+03	3.87E+04	7.13E+03	3.32E+04	5.98E+03	2.79E+04	4.92E+03	2.30E+04
3.00	9.44E+03	4.38E+04	8.19E+03	3.80E+04	6.97E+03	3.24E+04	5.82E+03	2.71E+04	4.76E+03	2.22E+04
3.50	9.28E+03	4.31E+04	8.03E+03	3.73E+04	6.81E+03	3.17E+04	5.66E+03	2.64E+04	4.61E+03	2.15E+04
4.00	9.11E+03	4.23E+04	7.87E+03	3.66E+04	6.66E+03	3.10E+04	5.52E+03	2.57E+04	4.48E+03	2.09E+04
5.00	8.77E+03	4.07E+04	7.55E+03	3.51E+04	6.36E+03	2.96E+04	5.24E+03	2.44E+04	4.23E+03	1.97E+04

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.00$$

L.T. = E(NEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	6.70E+07	8.54E+08	6.36E+07	1.01E+09	6.09E+07	1.17E+09	5.81E+07	1.30E+09	5.66E+07	1.46E+09
.02	6.04E+07	5.26E+08	5.61E+07	5.78E+08	5.26E+07	6.26E+08	4.90E+07	6.44E+08	4.66E+07	7.11E+08
.03	5.58E+07	4.10E+08	5.12E+07	4.31E+08	4.73E+07	4.49E+08	4.35E+07	4.61E+08	4.08E+07	4.78E+08
.04	5.21E+07	3.48E+08	4.73E+07	3.54E+08	4.33E+07	3.59E+08	3.95E+07	3.59E+08	3.67E+07	3.65E+08
.05	4.88E+07	3.06E+08	4.40E+07	3.04E+08	4.00E+07	3.02E+08	3.62E+07	2.97E+08	3.34E+07	2.97E+08
.10	3.66E+07	2.00E+08	3.23E+07	1.87E+08	2.87E+07	1.75E+08	2.54E+07	1.63E+08	2.28E+07	1.55E+08
.20	2.17E+07	1.10E+08	1.87E+07	9.77E+07	1.63E+07	8.76E+07	1.41E+07	7.80E+07	1.24E+07	7.07E+07
.30	1.32E+07	6.49E+07	1.12E+07	5.65E+07	9.65E+06	4.96E+07	8.23E+06	4.31E+07	7.14E+06	3.82E+07
.40	8.10E+06	3.93E+07	6.83E+06	3.37E+07	5.81E+06	2.92E+07	4.91E+06	2.50E+07	4.22E+06	2.19E+07
.50	4.09E+06	2.40E+07	4.19E+06	2.04E+07	3.54E+06	1.75E+07	2.96E+06	1.48E+07	2.53E+06	1.28E+07
.60	3.09E+06	1.48E+07	2.58E+06	1.25E+07	2.16E+06	1.06E+07	1.80E+06	8.91E+06	1.53E+06	7.64E+06
.70	1.92E+06	9.14E+06	1.59E+06	7.65E+06	1.33E+06	6.45E+06	1.10E+06	5.40E+06	9.28E+05	4.60E+06
.80	1.19E+06	5.66E+06	9.83E+05	4.71E+06	8.18E+05	3.95E+06	6.75E+05	3.29E+06	5.67E+05	2.79E+06
.90	7.41E+05	3.51E+06	6.09E+05	2.91E+06	5.05E+05	2.43E+06	4.15E+05	2.01E+06	3.47E+05	1.70E+06
1.00	4.61E+05	2.18E+06	3.78E+05	1.80E+06	3.12E+05	1.50E+06	2.56E+05	1.24E+06	2.13E+05	1.04E+06
1.10	2.88E+05	1.36E+06	2.35E+05	1.12E+06	1.94E+05	9.26E+05	1.58E+05	7.61E+05	1.31E+05	6.36E+05
1.20	1.79E+05	8.46E+05	1.46E+05	6.93E+05	1.20E+05	5.73E+05	9.77E+04	4.69E+05	8.09E+04	3.91E+05
1.30	1.12E+05	5.28E+05	9.10E+04	4.31E+05	7.45E+04	3.55E+05	6.05E+04	2.90E+05	5.00E+04	2.40E+05
1.40	6.99E+04	3.29E+05	5.67E+04	2.68E+05	4.63E+04	2.20E+05	3.75E+04	1.79E+05	3.09E+04	1.48E+05
1.50	4.36E+04	2.05E+05	3.53E+04	1.67E+05	2.88E+04	1.37E+05	2.33E+04	1.11E+05	1.91E+04	9.16E+04
1.60	2.73E+04	1.28E+05	2.20E+04	1.04E+05	1.79E+04	8.50E+04	1.44E+04	6.88E+04	1.18E+04	5.67E+04
1.70	1.70E+04	8.01E+04	1.37E+04	6.48E+04	1.12E+04	5.28E+04	8.98E+03	4.27E+04	7.34E+03	3.51E+04
1.80	1.07E+04	5.00E+04	8.57E+03	4.04E+04	6.95E+03	3.29E+04	5.58E+03	2.65E+04	4.56E+03	2.17E+04
1.90	6.66E+03	3.13E+04	5.35E+03	2.52E+04	4.33E+03	2.05E+04	3.47E+03	1.65E+04	2.83E+03	1.35E+04
2.00	4.17E+03	1.95E+04	3.34E+03	1.57E+04	2.70E+03	1.27E+04	2.16E+03	1.02E+04	1.76E+03	8.36E+03
2.50	4.00E+02	1.87E+03	3.18E+02	1.49E+03	2.55E+02	1.20E+03	2.03E+02	9.58E+02	1.64E+02	7.66E+02
3.00	3.85E+01	1.80E+02	3.05E+01	1.43E+02	2.43E+01	1.14E+02	1.92E+01	9.04E+01	1.54E+01	7.27E+01
3.50	3.72E+00	1.74E+01	2.93E+00	1.37E+01	2.32E+00	1.09E+01	1.83E+00	8.58E+00	1.46E+00	6.86E+00
4.00	3.59E-01	1.68E+00	2.82E-01	1.32E+00	2.23E-01	1.04E+00	1.74E-01	8.18E-01	1.38E-01	6.51E-01
5.00	3.37E-03	1.57E-02	2.62E-03	1.23E-02	2.06E-03	9.64E-03	1.60E-03	7.49E-03	1.26E-03	5.92E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.00$ 

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	5.31E+07	1.56E+09	5.01E+07	1.64E+09	4.78E+07	1.73E+09	4.36E+07	1.73E+09	4.31E+07	1.86E+09
.02	4.27E+07	7.26E+08	3.94E+07	7.37E+08	3.66E+07	7.49E+08	3.27E+07	7.24E+08	3.15E+07	7.53E+08
.03	3.69E+07	4.75E+08	3.35E+07	4.70E+08	3.08E+07	4.67E+08	2.71E+07	4.42E+08	2.57E+07	4.50E+08
.04	3.28E+07	3.55E+08	2.95E+07	3.45E+08	2.68E+07	3.37E+08	2.34E+07	3.13E+08	2.20E+07	3.14E+08
.05	2.96E+07	2.84E+08	2.65E+07	2.72E+08	2.39E+07	2.62E+08	2.06E+07	2.40E+08	1.92E+07	2.38E+08
.10	1.96E+07	1.41E+08	1.73E+07	1.29E+08	1.52E+07	1.19E+08	1.28E+07	1.05E+08	1.17E+07	9.93E+07
.20	1.05E+07	6.16E+07	8.93E+06	5.41E+07	7.66E+06	4.77E+07	6.32E+06	4.04E+07	5.62E+06	3.69E+07
.30	5.95E+06	3.26E+07	5.00E+06	2.80E+07	4.23E+06	2.41E+07	3.44E+06	2.00E+07	3.02E+06	1.79E+07
.40	3.48E+06	1.83E+07	2.90E+06	1.55E+07	2.43E+06	1.32E+07	1.96E+06	1.08E+07	1.70E+06	9.53E+06
.50	2.07E+06	1.06E+07	1.71E+06	8.91E+06	1.42E+06	7.51E+06	1.14E+06	6.08E+06	9.78E+05	5.30E+06
.60	1.24E+06	6.29E+06	1.02E+06	5.22E+06	8.42E+05	4.36E+06	6.69E+05	3.50E+06	5.73E+05	3.03E+06
.70	7.51E+05	3.76E+06	6.14E+05	3.10E+06	5.04E+05	2.57E+06	3.98E+05	2.05E+06	3.39E+05	1.76E+06
.80	4.56E+05	2.26E+06	3.71E+05	1.86E+06	3.03E+05	1.53E+06	2.39E+05	1.21E+06	2.02E+05	1.04E+06
.90	2.78E+05	1.37E+06	2.26E+05	1.12E+06	1.84E+05	9.19E+05	1.44E+05	7.25E+05	1.21E+05	6.16E+05
1.00	1.70E+05	8.35E+05	1.38E+05	6.78E+05	1.12E+05	5.54E+05	8.71E+04	4.36E+05	7.32E+04	3.69E+05
1.10	1.05E+05	5.10E+05	8.41E+04	4.13E+05	6.80E+04	3.36E+05	5.29E+04	2.63E+05	4.43E+04	2.22E+05
1.20	6.42E+04	3.12E+05	5.15E+04	2.52E+05	4.15E+04	2.04E+05	3.22E+04	1.59E+05	2.69E+04	1.34E+05
1.30	3.96E+04	1.92E+05	3.17E+04	1.54E+05	2.54E+04	1.24E+05	1.97E+04	9.16E+04	1.64E+04	8.11E+04
1.40	2.44E+04	1.18E+05	1.95E+04	9.45E+04	1.56E+04	7.61E+04	1.20E+04	5.90E+04	1.00E+04	4.93E+04
1.50	1.51E+04	7.25E+04	1.20E+04	5.80E+04	9.59E+03	4.66E+04	7.39E+03	3.61E+04	6.12E+03	3.00E+04
1.60	9.31E+03	4.47E+04	7.40E+03	3.57E+04	5.90E+03	2.86E+04	4.54E+03	2.21E+04	3.75E+03	1.83E+04
1.70	5.76E+03	2.76E+04	4.57E+03	2.20E+04	3.64E+03	1.76E+04	2.79E+03	1.35E+04	2.30E+03	1.12E+04
1.80	3.57E+03	1.71E+04	2.82E+03	1.36E+04	2.24E+03	1.08E+04	1.72E+03	8.32E+03	1.41E+03	6.88E+03
1.90	2.21E+03	1.06E+04	1.75E+03	8.38E+03	1.38E+03	6.67E+03	1.06E+03	5.12E+03	8.69E+02	4.22E+03
2.00	1.37E+03	6.55E+03	1.08E+03	5.18E+03	8.56E+02	4.12E+03	6.53E+02	3.15E+03	5.35E+02	2.59E+03
2.50	1.27E+02	6.02E+02	9.92E+01	4.73E+02	7.19E+01	3.72E+02	5.90E+01	2.83E+02	4.80E+01	2.31E+02
3.00	1.18E+01	5.61E+01	9.21E+00	4.37E+01	7.79E+00	3.42E+01	5.41E+00	2.58E+01	4.37E+00	2.09E+01
3.50	1.11E+00	5.26E+00	8.62E-01	4.08E+00	6.69E-01	3.17E+00	5.01E-01	2.38E+00	4.03E-01	1.92E+00
4.00	1.05E-01	4.97E-01	8.11E-02	3.83E-01	6.27E-02	2.97E-01	4.67E-02	2.21E-01	3.74E-02	1.78E-01
5.00	9.53E-04	4.48E-03	7.28E-04	3.43E-03	5.58E-04	2.63E-03	4.13E-04	1.95E-03	3.28E-04	1.55E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.25$$

L.T. = E(MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.75E+07	1.62E+09	4.29E+07	1.56E+09	4.71E+07	1.40E+09	5.32E+07	1.22E+09	5.76E+07	9.14E+08
.02	2.74E+07	6.55E+08	3.29E+07	6.74E+08	3.78E+07	6.48E+08	4.48E+07	6.18E+08	5.09E+07	5.22E+08
.03	2.24E+07	3.91E+08	2.76E+07	4.20E+08	3.26E+07	4.23E+08	3.97E+07	4.26E+08	4.64E+07	3.89E+08
.04	1.91E+07	2.73E+08	2.40E+07	3.02E+08	2.89E+07	3.15E+08	3.59E+07	3.31E+08	4.29E+07	3.20E+08
.05	1.67E+07	2.07E+08	2.14E+07	2.35E+08	2.61E+07	2.52E+08	3.29E+07	2.74E+08	4.00E+07	2.75E+08
.10	1.02E+07	8.64E+07	1.36E+07	1.06E+08	1.74E+07	1.24E+08	2.30E+07	1.49E+08	2.93E+07	1.69E+08
.20	4.89E+06	3.21E+07	6.86E+06	4.28E+07	9.19E+06	5.43E+07	1.27E+07	7.08E+07	1.70E+07	8.87E+07
.30	2.63E+06	1.56E+07	3.79E+06	2.16E+07	5.22E+06	2.86E+07	7.41E+06	3.90E+07	1.02E+07	5.13E+07
.40	1.48E+06	8.29E+06	2.17E+06	1.18E+07	3.05E+06	1.61E+07	4.42E+06	2.26E+07	6.21E+06	3.06E+07
.50	8.51E+05	4.61E+06	1.27E+06	6.72E+06	1.81E+06	9.33E+06	2.66E+06	1.34E+07	3.81E+06	1.86E+07
.60	4.98E+05	2.64E+06	7.53E+05	3.90E+06	1.09E+06	5.51E+06	1.62E+06	8.02E+06	2.34E+06	1.13E+07
.70	2.95E+05	1.53E+06	4.51E+05	2.30E+06	6.57E+05	3.29E+06	9.88E+05	4.85E+06	1.45E+06	6.96E+06
.80	1.76E+05	9.03E+05	2.71E+05	1.37E+06	3.99E+05	1.98E+06	6.05E+05	2.95E+06	8.95E+05	4.29E+06
.90	1.06E+05	5.36E+05	1.64E+05	8.21E+05	2.43E+05	1.20E+06	3.72E+05	1.81E+06	5.55E+05	2.65E+06
1.00	6.37E+04	3.21E+05	9.97E+04	4.95E+05	1.49E+05	7.30E+05	2.29E+05	1.11E+06	3.44E+05	1.64E+06
1.10	3.85E+04	1.93E+05	6.07E+04	3.00E+05	9.13E+04	4.45E+05	1.42E+05	6.82E+05	2.14E+05	1.02E+06
1.20	2.34E+04	1.16E+05	3.71E+04	1.82E+05	5.61E+04	2.73E+05	8.75E+04	4.20E+05	1.33E+05	6.31E+05
1.30	1.43E+04	7.05E+04	2.27E+04	1.11E+05	3.45E+04	1.67E+05	5.41E+04	2.59E+05	8.28E+04	3.92E+05
1.40	8.70E+03	4.29E+04	1.39E+04	6.80E+04	2.13E+04	1.03E+05	3.35E+04	1.60E+05	5.16E+04	2.44E+05
1.50	5.32E+03	2.61E+04	8.57E+03	4.17E+04	1.31E+04	6.33E+04	2.08E+04	9.93E+04	3.21E+04	1.52E+05
1.60	3.26E+03	1.60E+04	5.27E+03	2.56E+04	8.12E+03	3.91E+04	1.29E+04	6.15E+04	2.00E+04	9.46E+04
1.70	2.00E+03	9.76E+03	3.25E+03	1.57E+04	5.03E+03	2.41E+04	8.02E+03	3.82E+04	1.25E+04	5.90E+04
1.80	1.23E+03	5.98E+03	2.10E+03	9.67E+03	3.11E+03	1.49E+04	4.99E+03	2.37E+04	7.80E+03	3.68E+04
1.90	7.56E+02	3.67E+03	1.24E+03	5.96E+03	1.93E+03	9.22E+03	3.10E+03	1.47E+04	4.87E+03	2.29E+04
2.00	4.66E+02	2.26E+03	7.44E+02	3.68E+03	1.20E+03	5.71E+03	1.93E+03	9.15E+03	3.04E+03	1.43E+04
2.50	4.18E+01	2.01E+02	6.96E+01	3.32E+02	1.10E+02	5.25E+02	1.81E+02	8.55E+02	2.90E+02	1.36E+03
3.00	3.60E+00	1.02E+01	6.42E+00	3.05E+01	1.03E+01	4.86E+01	1.71E+01	8.06E+01	2.78E+01	1.30E+02
3.50	3.50E-01	1.67E+00	5.97E-01	2.83E+00	9.70E-01	4.58E+00	1.63E+00	7.64E+00	2.67E+00	1.25E+01
4.00	3.25E-02	1.54E-01	5.60E-02	2.65E-01	9.17E-02	4.32E-01	1.55E-01	7.28E-01	2.57E-01	1.20E+00
5.00	2.85E-04	1.35E-03	4.98E-04	2.35E-03	8.28E-04	3.89E-03	1.42E-03	6.66E-03	2.39E-03	1.12E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.25$ 

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	6.32E+07	6.35E+08	6.95E+07	3.72E+08	7.66E+07	2.41E+08	7.92E+07	1.39E+08	7.84E+07	7.46E+07
.02	5.81E+07	4.27E+08	6.60E+07	3.30E+08	7.38E+07	2.88E+08	7.71E+07	2.47E+08	7.68E+07	2.15E+08
.03	5.43E+07	3.50E+08	6.28E+07	3.07E+08	7.09E+07	2.94E+08	7.45E+07	2.74E+08	7.44E+07	2.54E+08
.04	5.10E+07	3.06E+08	5.99E+07	2.89E+08	6.80E+07	2.91E+08	7.17E+07	2.81E+08	7.18E+07	2.68E+08
.05	4.81E+07	2.76E+08	5.70E+07	2.73E+08	6.51E+07	2.83E+08	6.89E+07	2.80E+08	6.91E+07	2.70E+08
.10	3.67E+07	1.91E+08	4.50E+07	2.12E+08	5.21E+07	2.35E+08	5.57E+07	2.43E+08	5.62E+07	2.41E+08
.20	2.22E+07	1.09E+08	2.81E+07	1.32E+08	3.31E+07	1.51E+08	3.57E+07	1.61E+08	3.62E+07	1.62E+08
.30	1.37E+07	6.60E+07	1.76E+07	8.23E+07	2.09E+07	9.62E+07	2.27E+07	1.03E+08	2.31E+07	1.05E+08
.40	8.44E+06	4.04E+07	1.10E+07	5.15E+07	1.32E+07	6.09E+07	1.44E+07	6.58E+07	1.47E+07	6.68E+07
.50	5.24E+06	2.49E+07	6.92E+06	3.23E+07	8.31E+06	3.84E+07	9.08E+06	4.17E+07	9.28E+06	4.25E+07
.60	3.26E+06	1.54E+07	4.34E+06	2.02E+07	5.23E+06	2.42E+07	5.73E+06	2.64E+07	5.87E+06	2.69E+07
.70	2.03E+06	9.59E+06	2.72E+06	1.27E+07	3.30E+06	1.53E+07	3.62E+06	1.67E+07	3.71E+06	1.70E+07
.80	1.27E+06	5.97E+06	1.71E+06	7.97E+06	2.07E+06	9.61E+06	2.28E+06	1.05E+07	2.34E+06	1.08E+07
.90	7.90E+05	3.72E+06	1.07E+06	5.00E+06	1.30E+06	6.05E+06	1.44E+06	6.64E+06	1.48E+06	6.80E+06
1.00	4.93E+05	2.32E+06	6.73E+05	3.14E+06	8.21E+05	3.81E+06	9.05E+05	4.18E+06	9.30E+05	4.29E+06
1.10	3.08E+05	1.45E+06	4.23E+05	1.97E+06	5.16E+05	2.39E+06	5.70E+05	2.64E+06	5.86E+05	2.71E+06
1.20	1.93E+05	9.05E+05	2.65E+05	1.24E+06	3.25E+05	1.51E+06	3.59E+05	1.66E+06	3.69E+05	1.71E+06
1.30	1.20E+05	5.65E+05	1.66E+05	7.75E+05	2.04E+05	9.47E+05	2.26E+05	1.05E+06	2.33E+05	1.08E+06
1.40	7.53E+04	3.53E+05	1.05E+05	4.87E+05	1.28E+05	5.96E+05	1.42E+05	6.59E+05	1.47E+05	6.78E+05
1.50	4.71E+04	2.21E+05	6.56E+04	3.05E+05	8.07E+04	3.75E+05	8.95E+04	4.15E+05	9.23E+04	4.27E+05
1.60	2.95E+04	1.38E+05	4.12E+04	1.92E+05	5.07E+04	2.35E+05	5.63E+04	2.61E+05	5.81E+04	2.69E+05
1.70	1.85E+04	8.65E+04	2.59E+04	1.20E+05	3.19E+04	1.48E+05	3.54E+04	1.64E+05	3.66E+04	1.69E+05
1.80	1.16E+04	5.41E+04	1.62E+04	7.56E+04	2.00E+04	9.31E+04	2.23E+04	1.03E+05	2.30E+04	1.07E+05
1.90	7.24E+03	3.39E+04	1.02E+04	4.74E+04	1.26E+04	5.85E+04	1.40E+04	6.50E+04	1.45E+04	6.71E+04
2.00	4.54E+03	2.12E+04	6.40E+03	2.98E+04	7.92E+03	3.68E+04	8.82E+03	4.09E+04	9.12E+03	4.22E+04
2.50	4.38E+02	2.05E+03	6.24E+02	2.91E+03	7.77E+02	3.61E+03	8.68E+02	4.03E+03	8.98E+02	4.16E+03
3.00	4.24E+01	1.98E+02	6.09E+01	2.84E+02	7.61E+01	3.54E+02	8.52E+01	3.96E+02	8.84E+01	4.10E+02
3.50	4.11E+00	1.92E+01	5.95E+00	2.77E+01	7.49E+00	3.46E+01	8.37E+00	3.88E+01	8.69E+00	4.03E+01
4.00	3.99E-01	1.86E+00	5.81E-01	2.70E+00	7.30E-01	3.39E+00	8.21E-01	3.81E+00	8.53E-01	3.96E+00
5.00	3.76E-03	1.75E-02	5.54E-03	2.58E-02	7.00E-03	3.25E-02	7.89E-03	3.67E-02	8.22E-03	3.82E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.25$$

L.T. = E(MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	7.37E+07	8.49E+07	6.88E+07	1.69E+08	6.64E+07	3.09E+08	6.36E+07	4.48E+08	6.10E+07	6.01E+08
.02	7.21E+07	2.09E+08	6.67E+07	2.37E+08	6.34E+07	2.95E+08	5.97E+07	3.49E+08	5.62E+07	4.07E+08
.03	6.98E+07	2.43E+08	6.43E+07	2.52E+08	6.05E+07	2.82E+08	5.64E+07	3.08E+08	5.25E+07	3.35E+08
.04	6.73E+07	2.54E+08	6.17E+07	2.53E+08	5.78E+07	2.69E+08	5.35E+07	2.81E+08	4.94E+07	2.94E+08
.05	6.48E+07	2.56E+08	5.92E+07	2.49E+08	5.51E+07	2.56E+08	5.08E+07	2.61E+08	4.66E+07	2.65E+08
.10	5.26E+07	2.26E+08	4.77E+07	2.11E+08	4.37E+07	2.03E+08	3.96E+07	1.94E+08	3.56E+07	1.84E+08
.20	3.38E+07	1.51E+08	3.04E+07	1.38E+08	2.74E+07	1.28E+08	2.45E+07	1.17E+08	2.16E+07	1.06E+08
.30	2.16E+07	9.77E+07	1.93E+07	8.82E+07	1.72E+07	8.02E+07	1.52E+07	7.19E+07	1.33E+07	6.40E+07
.40	1.37E+07	6.24E+07	1.22E+07	5.59E+07	1.08E+07	5.04E+07	9.49E+06	4.47E+07	8.21E+06	3.93E+07
.50	8.66E+06	3.97E+07	7.68E+06	3.54E+07	6.80E+06	3.16E+07	5.93E+06	2.78E+07	5.10E+06	2.42E+07
.60	5.47E+06	2.51E+07	4.84E+06	2.24E+07	4.27E+06	1.99E+07	3.71E+06	1.74E+07	3.17E+06	1.50E+07
.70	3.45E+06	1.59E+07	3.05E+06	1.41E+07	2.68E+06	1.25E+07	2.32E+06	1.09E+07	1.98E+06	9.34E+06
.80	2.18E+06	1.00E+07	1.92E+06	8.89E+06	1.68E+06	7.84E+06	1.45E+06	6.80E+06	1.23E+06	5.81E+06
.90	1.37E+06	6.34E+06	1.21E+06	5.60E+06	1.06E+06	4.92E+06	9.09E+05	4.25E+06	7.69E+05	3.62E+06
1.00	8.67E+05	4.00E+06	7.62E+05	3.53E+06	6.65E+05	3.09E+06	5.70E+05	2.66E+06	4.80E+05	2.26E+06
1.10	5.46E+05	2.52E+06	4.80E+05	2.22E+06	4.17E+05	1.94E+06	3.57E+05	1.67E+06	3.00E+05	1.41E+06
1.20	3.44E+05	1.59E+06	3.02E+05	1.40E+06	2.62E+05	1.22E+06	2.24E+05	1.04E+06	1.88E+05	8.81E+05
1.30	2.17E+05	1.00E+06	1.90E+05	8.80E+05	1.65E+05	7.66E+05	1.40E+05	6.55E+05	1.17E+05	5.51E+05
1.40	1.34E+05	6.31E+05	1.19E+05	5.54E+05	1.03E+05	4.81E+05	8.79E+04	4.10E+05	7.35E+04	3.48E+05
1.50	8.59E+04	3.98E+05	7.52E+04	3.49E+05	6.49E+04	3.02E+05	5.51E+04	2.57E+05	4.60E+04	2.15E+05
1.60	5.41E+04	2.50E+05	4.73E+04	2.19E+05	4.08E+04	1.90E+05	3.46E+04	1.61E+05	2.88E+04	1.35E+05
1.70	3.40E+04	1.58E+05	2.97E+04	1.38E+05	2.56E+04	1.19E+05	2.17E+04	1.01E+05	1.80E+04	8.44E+04
1.80	2.14E+04	9.92E+04	1.87E+04	8.67E+04	1.61E+04	7.48E+04	1.36E+04	6.34E+04	1.13E+04	5.28E+04
1.90	1.35E+04	6.24E+04	1.14E+04	5.45E+04	1.01E+04	4.70E+04	8.53E+03	3.98E+04	7.07E+03	3.31E+04
2.00	8.48E+03	3.93E+04	7.39E+03	3.43E+04	6.35E+03	2.95E+04	5.35E+03	2.49E+04	4.43E+03	2.07E+04
2.50	8.35E+02	3.87E+03	7.26E+02	3.37E+03	6.20E+02	2.89E+03	5.20E+02	2.42E+03	4.28E+02	2.00E+03
3.00	8.21E+01	3.81E+02	7.12E+01	3.31E+02	6.06E+01	2.82E+02	5.06E+01	2.36E+02	4.14E+01	1.93E+02
3.50	8.07E+00	3.75E+01	6.98E+00	3.24E+01	5.92E+00	2.76E+01	4.93E+00	2.29E+01	4.01E+00	1.87E+01
4.00	7.92E-01	3.68E+00	6.85E-01	3.18E+00	5.79E-01	2.69E+00	4.80E-01	2.23E+00	3.89E-01	1.82E+00
5.00	7.63E-03	3.54E-02	6.57E-03	3.05E-02	5.53E-03	2.57E-02	4.56E-03	2.12E-02	3.68E-03	1.71E-02

Table 3 (Continued)  
Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 1.25

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	5.83E+07	7.43E+08	5.53E+07	6.83E+08	5.30E+07	1.01E+09	5.05E+07	1.13E+09	4.92E+07	1.27E+09
.02	5.26E+07	4.57E+08	4.88E+07	5.03E+08	4.57E+07	5.44E+08	4.26E+07	5.78E+08	4.05E+07	6.18E+08
.03	4.86E+07	3.57E+08	4.45E+07	3.75E+08	4.12E+07	3.90E+08	3.78E+07	4.01E+08	3.55E+07	4.16E+08
.04	4.53E+07	3.02E+08	4.11E+07	3.08E+08	3.77E+07	3.12E+08	3.43E+07	3.12E+08	3.19E+07	3.17E+08
.05	4.25E+07	2.66E+08	3.83E+07	2.65E+08	3.48E+07	2.63E+08	3.15E+07	2.59E+08	2.90E+07	2.58E+08
.10	3.18E+07	1.74E+08	2.81E+07	1.62E+08	2.50E+07	1.52E+08	2.21E+07	1.42E+08	1.99E+07	1.35E+08
.20	1.89E+07	9.55E+07	1.63E+07	8.50E+07	1.42E+07	7.62E+07	1.22E+07	6.79E+07	1.08E+07	6.15E+07
.30	1.15E+07	5.65E+07	9.78E+06	4.92E+07	8.40E+06	4.31E+07	7.16E+06	3.75E+07	6.21E+06	3.33E+07
.40	7.04E+06	3.42E+07	5.94E+06	2.93E+07	5.36E+06	2.54E+07	4.27E+06	2.18E+07	3.67E+06	1.90E+07
.50	4.34E+06	2.09E+07	3.64E+06	1.78E+07	3.08E+06	1.52E+07	2.58E+06	1.29E+07	2.20E+06	1.12E+07
.60	2.69E+06	1.29E+07	2.24E+06	1.08E+07	1.88E+06	9.20E+06	1.57E+06	7.75E+06	1.33E+06	6.65E+06
.70	1.67E+06	7.95E+06	1.38E+06	6.65E+06	1.16E+06	5.61E+06	9.58E+05	4.70E+06	8.07E+05	4.00E+06
.80	1.04E+06	4.92E+06	8.55E+05	4.10E+06	7.12E+05	3.44E+06	5.87E+05	2.86E+06	4.93E+05	2.42E+06
.90	6.45E+05	3.06E+06	5.30E+05	2.53E+06	4.39E+05	2.11E+06	3.61E+05	1.75E+06	3.02E+05	1.48E+06
1.00	4.01E+05	1.90E+06	3.29E+05	1.57E+06	2.72E+05	1.30E+06	2.23E+05	1.08E+06	1.85E+05	9.02E+05
1.10	2.50E+05	1.18E+06	2.04E+05	9.72E+05	1.68E+05	8.05E+05	1.37E+05	6.62E+05	1.14E+05	5.53E+05
1.20	1.56E+05	7.36E+05	1.27E+05	6.03E+05	1.04E+05	4.98E+05	8.50E+04	4.08E+05	7.04E+04	3.40E+05
1.30	9.74E+04	4.59E+05	7.91E+04	3.75E+05	6.48E+04	3.09E+05	5.26E+04	2.52E+05	4.35E+04	2.09E+05
1.40	6.08E+04	2.86E+05	4.93E+04	2.33E+05	4.03E+04	1.92E+05	3.26E+04	1.56E+05	2.69E+04	1.29E+05
1.50	3.80E+04	1.79E+05	3.07E+04	1.45E+05	2.50E+04	1.19E+05	2.02E+04	9.66E+04	1.66E+04	7.97E+04
1.60	2.37E+04	1.12E+05	1.91E+04	9.04E+04	1.56E+04	7.39E+04	1.28E+04	5.99E+04	1.03E+04	4.93E+04
1.70	1.48E+04	6.97E+04	1.19E+04	5.63E+04	9.70E+03	4.60E+04	7.81E+03	3.71E+04	6.39E+03	3.05E+04
1.80	9.27E+03	4.35E+04	7.45E+03	3.51E+04	6.04E+03	2.86E+04	4.85E+03	2.31E+04	3.96E+03	1.89E+04
1.90	5.79E+03	2.72E+04	4.65E+03	2.19E+04	3.77E+03	1.78E+04	3.02E+03	1.43E+04	2.46E+03	1.17E+04
2.00	3.62E+03	1.70E+04	2.91E+03	1.37E+04	2.35E+03	1.11E+04	1.88E+03	8.91E+03	1.53E+03	7.27E+03
2.50	3.48E+02	1.63E+03	2.77E+02	1.30E+03	2.22E+02	1.05E+03	1.77E+02	8.34E+02	1.43E+02	6.75E+02
3.00	3.35E+01	1.57E+02	2.65E+01	1.24E+02	2.11E+01	9.94E+01	1.67E+01	7.87E+01	1.34E+01	6.33E+01
3.50	3.23E+00	1.51E+01	2.55E+00	1.19E+01	2.02E+00	9.48E+00	1.59E+00	7.47E+00	1.27E+00	5.97E+00
4.00	3.13E+01	1.46E+00	2.45E+01	1.15E+00	1.94E+01	9.08E+01	1.52E+01	7.12E+01	1.20E+01	5.66E+01
5.00	2.93E+03	1.37E+02	2.28E+03	1.07E+02	1.79E+03	8.38E+03	1.39E+03	6.52E+03	1.10E+03	5.15E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.25$$

L.T. # E(MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	4.62E+07	1.36E+09	4.36E+07	1.43E+09	4.16E+07	1.51E+09	3.80E+07	1.50E+09	3.75E+07	1.62E+09
.02	3.72E+07	6.32E+08	3.43E+07	6.41E+08	3.19E+07	6.52E+08	2.84E+07	6.30E+08	2.74E+07	6.55E+08
.03	3.21E+07	4.13E+08	2.92E+07	4.09E+08	2.68E+07	4.06E+08	2.35E+07	3.84E+08	2.24E+07	3.91E+08
.04	2.85E+07	3.09E+08	2.57E+07	3.00E+08	2.33E+07	2.93E+08	2.03E+07	2.72E+08	1.91E+07	2.73E+08
.05	2.58E+07	2.47E+08	2.30E+07	2.37E+08	2.07E+07	2.28E+08	1.79E+07	2.09E+08	1.67E+07	2.07E+08
.10	1.72E+07	1.23E+08	1.50E+07	1.12E+08	1.32E+07	1.03E+08	1.12E+07	9.09E+07	1.02E+07	8.64E+07
.20	9.11E+06	5.36E+07	7.77E+06	4.70E+07	6.66E+06	4.15E+07	5.50E+06	3.52E+07	4.89E+06	3.21E+07
.30	5.18E+06	2.83E+07	4.35E+06	2.43E+07	3.68E+06	2.10E+07	3.00E+06	1.74E+07	2.63E+06	1.56E+07
.40	3.03E+06	1.60E+07	2.52E+06	1.35E+07	2.11E+06	1.15E+07	1.70E+06	9.40E+06	1.48E+06	8.29E+06
.50	1.80E+06	9.26E+06	1.49E+06	7.75E+06	1.24E+06	6.53E+06	9.88E+05	5.29E+06	8.51E+05	4.61E+06
.60	1.08E+06	5.47E+06	8.87E+05	4.54E+06	7.33E+05	3.79E+06	5.82E+05	3.05E+06	4.98E+05	2.64E+06
.70	6.53E+05	3.27E+06	5.34E+05	2.70E+06	4.38E+05	2.24E+06	3.46E+05	1.78E+06	2.95E+05	1.53E+06
.80	3.97E+05	1.97E+06	3.23E+05	1.62E+06	2.64E+05	1.33E+06	2.08E+05	1.06E+06	1.76E+05	9.03E+05
.90	2.42E+05	1.19E+06	1.96E+05	9.74E+05	1.80E+05	7.99E+05	1.25E+05	6.31E+05	1.06E+05	5.36E+05
1.00	1.48E+05	7.26E+05	1.20E+05	5.90E+05	9.70E+04	4.82E+05	7.58E+04	3.79E+05	6.37E+04	3.21E+05
1.10	9.09E+04	4.43E+05	7.31E+04	3.59E+05	5.21E+04	2.92E+05	4.60E+04	2.29E+05	3.85E+04	1.93E+05
1.20	5.59E+04	2.71E+05	4.48E+04	2.19E+05	3.61E+04	1.78E+05	2.80E+04	1.39E+05	2.34E+04	1.16E+05
1.30	3.44E+04	1.67E+05	2.75E+04	1.34E+05	2.21E+04	1.08E+05	1.71E+04	8.43E+04	1.43E+04	7.05E+04
1.40	2.12E+04	1.02E+05	1.69E+04	8.22E+04	1.36E+04	6.62E+04	1.05E+04	5.14E+04	8.70E+03	4.29E+04
1.50	1.31E+04	6.31E+04	1.04E+04	5.05E+04	8.34E+03	4.06E+04	6.42E+03	3.14E+04	5.32E+03	2.61E+04
1.60	8.10E+03	3.89E+04	6.43E+03	3.11E+04	5.13E+03	2.49E+04	3.94E+03	1.92E+04	3.26E+03	1.60E+04
1.70	5.01E+03	2.40E+04	3.97E+03	1.91E+04	3.16E+03	1.53E+04	2.43E+03	1.18E+04	2.00E+03	9.76E+03
1.80	3.10E+03	1.49E+04	2.46E+03	1.18E+04	1.95E+03	9.42E+03	1.49E+03	7.24E+03	1.23E+03	5.98E+03
1.90	1.92E+03	9.20E+03	1.52E+03	7.29E+03	1.20E+03	5.80E+03	9.20E+02	4.45E+03	7.56E+02	3.67E+03
2.00	1.19E+03	5.69E+03	9.40E+02	4.51E+03	7.44E+02	3.58E+03	5.68E+02	2.74E+03	4.66E+02	2.26E+03
2.50	1.10E+02	5.24E+02	8.63E+01	4.11E+02	6.78E+01	3.24E+02	5.13E+01	2.46E+02	4.18E+01	2.01E+02
3.00	1.03E+01	4.68E+01	8.01E+00	3.80E+01	6.25E+00	2.97E+01	4.70E+00	2.04E+01	3.80E+00	1.82E+01
3.50	9.69E-01	4.54E+00	7.50E-01	3.55E+00	5.82E-01	2.76E+00	4.36E-01	2.07E+00	3.50E-01	1.67E+00
4.00	9.17E-02	4.32E-01	7.06E-02	3.33E-01	5.45E-02	2.58E-01	4.06E-02	1.93E-01	3.25E-02	1.54E-01
5.00	8.29E-04	3.49E-03	6.33E-04	2.98E-03	4.85E-04	2.29E-03	3.59E-04	1.49E-03	2.85E-04	1.35E-03



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.50$ 

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(+E)	J(F)	J(+E)	J(F)	J(+E)	J(F)	J(+E)	J(F)	J(+E)	J(F)
.01	3.34E+07	1.44E+09	3.83E+07	1.39E+09	4.20E+07	1.24E+09	4.75E+07	1.09E+09	5.14E+07	8.15E+08
.02	2.44E+07	5.84E+08	2.93E+07	6.01E+08	3.37E+07	5.78E+08	3.09E+07	5.51E+08	4.54E+07	4.66E+08
.03	2.00E+07	3.49E+08	2.46E+07	3.75E+08	2.91E+07	3.77E+08	3.54E+07	3.81E+08	4.14E+07	3.47E+08
.04	1.71E+07	2.43E+08	2.15E+07	2.70E+08	2.58E+07	2.81E+08	3.21E+07	2.96E+08	3.83E+07	2.85E+08
.05	1.49E+07	1.85E+08	1.91E+07	2.10E+08	2.33E+07	2.25E+08	2.94E+07	2.44E+08	3.57E+07	2.46E+08
.10	9.07E+06	7.71E+07	1.21E+07	9.49E+07	1.55E+07	1.11E+08	2.05E+07	1.33E+08	2.61E+07	1.51E+08
.20	4.36E+06	2.87E+07	6.12E+06	3.02E+07	8.20E+06	4.84E+07	1.13E+07	6.31E+07	1.52E+07	7.92E+07
.30	2.34E+06	1.39E+07	3.38E+06	1.93E+07	4.66E+06	2.55E+07	6.62E+06	3.48E+07	9.12E+06	4.58E+07
.40	1.32E+06	7.39E+06	1.94E+06	1.05E+07	2.72E+06	1.44E+07	3.94E+06	2.01E+07	5.55E+06	2.73E+07
.50	7.59E+05	4.12E+06	1.13E+06	5.99E+06	1.62E+06	6.33E+06	2.38E+06	1.19E+07	3.40E+06	1.66E+07
.60	4.44E+05	2.35E+06	6.72E+05	3.48E+06	9.70E+05	4.92E+06	1.44E+06	7.16E+06	2.09E+06	1.01E+07
.70	2.63E+05	1.37E+06	4.02E+05	2.05E+06	5.86E+05	2.94E+06	6.81E+05	4.33E+06	1.29E+06	6.21E+06
.80	1.57E+05	8.05E+05	2.42E+05	1.22E+06	3.56E+05	1.77E+06	5.40E+05	2.64E+06	7.98E+05	3.83E+06
.90	9.42E+04	4.78E+05	1.46E+05	7.33E+05	2.17E+05	1.07E+06	3.32E+05	1.61E+06	4.95E+05	2.36E+06
1.00	5.68E+04	2.86E+05	8.90E+04	4.42E+05	1.33E+05	6.51E+05	2.05E+05	9.89E+05	3.07E+05	1.46E+06
1.10	3.44E+04	1.72E+05	5.42E+04	2.68E+05	8.15E+04	3.26E+05	1.24E+05	6.08E+05	1.91E+05	9.07E+05
1.20	2.09E+04	1.04E+05	3.31E+04	1.63E+05	5.01E+04	2.43E+05	7.81E+04	3.75E+05	1.19E+05	5.63E+05
1.30	1.27E+04	6.29E+04	2.03E+04	9.93E+04	3.08E+04	1.49E+05	4.83E+04	2.31E+05	7.39E+04	3.50E+05
1.40	7.77E+03	3.83E+04	1.24E+04	6.07E+04	1.90E+04	9.18E+04	2.99E+04	1.43E+05	4.60E+04	2.18E+05
1.50	4.75E+03	2.33E+04	7.64E+03	3.72E+04	1.17E+04	5.65E+04	1.86E+04	8.86E+04	2.87E+04	1.36E+05
1.60	2.91E+03	1.42E+04	4.70E+03	2.28E+04	7.25E+03	3.49E+04	1.15E+04	5.49E+04	1.79E+04	8.44E+04
1.70	1.79E+03	8.71E+03	2.90E+03	1.40E+04	4.88E+03	2.15E+04	7.16E+03	3.41E+04	1.12E+04	5.26E+04
1.80	1.10E+03	5.34E+03	1.79E+03	6.63E+03	2.78E+03	1.33E+04	4.45E+03	2.11E+04	6.96E+03	3.28E+04
1.90	6.75E+02	3.27E+03	1.10E+03	5.32E+03	1.72E+03	6.23E+03	2.77E+03	1.31E+04	4.35E+03	2.05E+04
2.00	4.15E+02	2.01E+03	6.82E+02	3.28E+03	1.07E+03	5.10E+03	1.72E+03	8.16E+03	2.71E+03	1.28E+04
2.50	3.73E+01	1.79E+02	6.21E+01	2.97E+02	9.86E+01	4.68E+02	1.61E+02	7.19E+02	2.59E+02	1.22E+03
3.00	3.39E+00	1.62E+01	5.73E+00	2.72E+01	9.21E+00	4.36E+01	1.53E+01	7.19E+01	2.48E+01	1.16E+02
3.50	3.13E+01	1.49E+00	5.33E+01	2.53E+00	8.66E+01	4.09E+00	1.45E+00	6.82E+00	2.38E+00	1.11E+01
4.00	2.90E+02	1.38E+01	4.99E+02	2.36E+01	8.18E+02	3.86E+01	1.38E+01	6.50E+01	2.29E+01	1.07E+00
5.00	2.54E+04	1.20E+03	4.44E+04	2.09E+03	7.39E+04	3.47E+03	1.27E+03	5.94E+03	2.13E+03	9.97E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.50$$

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	5.64E+07	5.67E+08	6.20E+07	3.32E+08	6.83E+07	2.15E+08	7.06E+07	1.24E+08	7.00E+07	6.66E+07
.02	5.19E+07	3.81E+08	5.69E+07	2.95E+08	6.59E+07	2.57E+08	6.88E+07	2.20E+08	6.85E+07	1.92E+08
.03	4.84E+07	3.12E+08	5.61E+07	2.74E+08	6.33E+07	2.63E+08	6.64E+07	2.45E+08	6.64E+07	2.27E+08
.04	4.55E+07	2.73E+08	5.34E+07	2.58E+08	6.07E+07	2.59E+08	6.40E+07	2.51E+08	6.41E+07	2.39E+08
.05	4.29E+07	2.46E+08	5.09E+07	2.44E+08	5.81E+07	2.53E+08	6.14E+07	2.50E+08	6.17E+07	2.41E+08
.10	3.28E+07	1.70E+08	4.01E+07	1.90E+08	4.65E+07	2.09E+08	4.97E+07	2.17E+08	5.01E+07	2.15E+08
.20	1.98E+07	9.76E+07	2.51E+07	1.18E+08	2.95E+07	1.35E+08	3.18E+07	1.43E+08	3.23E+07	1.44E+08
.30	1.22E+07	5.88E+07	1.57E+07	7.35E+07	1.87E+07	8.58E+07	2.02E+07	9.21E+07	2.06E+07	9.33E+07
.40	7.53E+06	3.61E+07	9.85E+06	4.60E+07	1.18E+07	5.43E+07	1.28E+07	5.87E+07	1.31E+07	5.96E+07
.50	4.67E+06	2.22E+07	6.18E+06	2.88E+07	7.42E+06	3.43E+07	8.10E+06	3.72E+07	8.28E+06	3.79E+07
.60	2.91E+06	1.38E+07	3.87E+06	1.81E+07	4.67E+06	2.16E+07	5.11E+06	2.35E+07	5.24E+06	2.40E+07
.70	1.81E+06	8.56E+06	2.43E+06	1.13E+07	2.94E+06	1.36E+07	3.23E+06	1.49E+07	3.31E+06	1.52E+07
.80	1.13E+06	5.33E+06	1.53E+06	7.11E+06	1.85E+06	8.57E+06	2.03E+06	9.39E+06	2.09E+06	9.61E+06
.90	7.05E+05	3.32E+06	9.57E+05	4.45E+06	1.16E+06	5.40E+06	1.28E+06	5.92E+06	1.32E+06	6.07E+06
1.00	4.40E+05	2.07E+06	6.01E+05	2.80E+06	7.32E+05	3.40E+06	8.08E+05	3.73E+06	8.30E+05	3.83E+06
1.10	2.75E+05	1.29E+06	3.77E+05	1.76E+06	4.61E+05	2.14E+06	5.09E+05	2.35E+06	5.23E+05	2.42E+06
1.20	1.72E+05	8.07E+05	2.37E+05	1.10E+06	2.90E+05	1.34E+06	3.20E+05	1.48E+06	3.30E+05	1.52E+06
1.30	1.07E+05	5.04E+05	1.49E+05	6.92E+05	1.82E+05	8.45E+05	2.02E+05	9.33E+05	2.08E+05	9.60E+05
1.40	6.72E+04	3.15E+05	9.33E+04	4.34E+05	1.15E+05	5.31E+05	1.27E+05	5.88E+05	1.31E+05	6.05E+05
1.50	4.21E+04	1.97E+05	5.85E+04	2.73E+05	7.20E+04	3.34E+05	7.99E+04	3.70E+05	8.24E+04	3.81E+05
1.60	2.63E+04	1.23E+05	3.67E+04	1.71E+05	4.53E+04	2.10E+05	5.03E+04	2.33E+05	5.19E+04	2.40E+05
1.70	1.65E+04	7.72E+04	2.31E+04	1.07E+05	2.85E+04	1.32E+05	3.16E+04	1.47E+05	3.26E+04	1.51E+05
1.80	1.03E+04	4.83E+04	1.45E+04	6.74E+04	1.79E+04	8.31E+04	1.99E+04	9.22E+04	2.05E+04	9.51E+04
1.90	6.46E+03	3.02E+04	9.09E+03	4.23E+04	1.12E+04	5.22E+04	1.25E+04	5.80E+04	1.29E+04	5.99E+04
2.00	4.05E+03	1.89E+04	5.71E+03	2.65E+04	7.07E+03	3.28E+04	7.87E+03	3.65E+04	8.13E+03	3.77E+04
2.50	3.91E+02	1.83E+03	5.57E+02	2.59E+03	6.93E+02	3.22E+03	7.74E+02	3.59E+03	8.02E+02	3.72E+03
3.00	3.78E+01	1.77E+02	5.44E+01	2.53E+02	6.79E+01	3.16E+02	7.61E+01	3.53E+02	7.69E+01	3.66E+02
3.50	3.67E+00	1.71E+01	5.31E+00	2.47E+01	6.65E+00	3.09E+01	7.47E+00	3.47E+01	7.75E+00	3.60E+01
4.00	3.56E+01	1.66E+00	5.18E+01	2.41E+00	6.51E+01	3.03E+00	7.32E+01	3.40E+00	7.61E+01	3.53E+00
5.00	3.36E+03	1.56E+02	4.94E+03	2.30E+02	6.24E+03	2.90E+02	7.04E+03	3.27E+02	7.33E+03	3.40E+02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.50$$

L.T. = E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	6.58E+07	7.57E+07	6.14E+07	1.51E+08	5.93E+07	2.76E+08	5.67E+07	4.00E+08	5.44E+07	5.36E+08
.02	6.43E+07	1.87E+08	5.95E+07	2.11E+08	5.66E+07	2.63E+08	5.33E+07	3.12E+08	5.01E+07	3.64E+08
.03	6.23E+07	2.17E+08	5.73E+07	2.25E+08	5.40E+07	2.51E+08	5.03E+07	2.74E+08	4.69E+07	2.99E+08
.04	6.01E+07	2.27E+08	5.51E+07	2.26E+08	5.16E+07	2.49E+08	4.77E+07	2.51E+08	4.41E+07	2.62E+08
.05	5.78E+07	2.28E+08	5.28E+07	2.23E+08	4.92E+07	2.29E+08	4.53E+07	2.33E+08	4.16E+07	2.37E+08
.10	4.69E+07	2.02E+08	4.25E+07	1.88E+08	3.90E+07	1.81E+08	3.53E+07	1.73E+08	3.18E+07	1.64E+08
.20	3.02E+07	1.35E+08	2.71E+07	1.23E+08	2.45E+07	1.14E+08	2.18E+07	1.04E+08	1.93E+07	9.46E+07
.30	1.92E+07	8.72E+07	1.72E+07	7.87E+07	1.54E+07	7.15E+07	1.36E+07	6.42E+07	1.18E+07	5.71E+07
.40	1.22E+07	5.57E+07	1.09E+07	4.99E+07	9.66E+06	4.49E+07	8.46E+06	3.99E+07	7.33E+06	3.50E+07
.50	7.72E+06	3.54E+07	6.85E+06	3.16E+07	6.07E+06	2.82E+07	5.29E+06	2.48E+07	4.55E+06	2.16E+07
.60	4.88E+06	2.24E+07	4.32E+06	1.99E+07	3.81E+06	1.77E+07	3.31E+06	1.55E+07	2.83E+06	1.34E+07
.70	3.08E+06	1.42E+07	2.72E+06	1.26E+07	2.39E+06	1.11E+07	2.07E+06	9.69E+06	1.76E+06	8.33E+06
.80	1.95E+06	8.96E+06	1.72E+06	7.93E+06	1.50E+06	6.19E+06	1.30E+06	6.06E+06	1.10E+06	5.19E+06
.90	1.23E+06	5.66E+06	1.08E+06	5.00E+06	9.44E+05	4.39E+06	8.11E+05	3.79E+06	6.86E+05	3.23E+06
1.00	7.73E+05	3.57E+06	6.80E+05	3.15E+06	5.93E+05	2.76E+06	5.08E+05	2.38E+06	4.29E+05	2.02E+06
1.10	4.87E+05	2.25E+06	4.28E+05	1.98E+06	3.72E+05	1.73E+06	3.18E+05	1.49E+06	2.68E+05	1.26E+06
1.20	3.07E+05	1.42E+06	2.69E+05	1.25E+06	2.34E+05	1.09E+06	2.00E+05	9.32E+05	1.68E+05	7.86E+05
1.30	1.93E+05	8.94E+05	1.69E+05	7.85E+05	1.47E+05	6.83E+05	1.25E+05	5.84E+05	1.05E+05	4.92E+05
1.40	1.22E+05	5.63E+05	1.07E+05	4.94E+05	9.23E+04	4.29E+05	7.84E+04	3.66E+05	6.56E+04	3.07E+05
1.50	7.67E+04	3.55E+05	6.71E+04	3.11E+05	5.80E+04	2.70E+05	4.92E+04	2.30E+05	4.10E+04	1.92E+05
1.60	4.82E+04	2.23E+05	4.22E+04	1.96E+05	3.64E+04	1.69E+05	3.08E+04	1.44E+05	2.57E+04	1.20E+05
1.70	3.04E+04	1.41E+05	2.65E+04	1.23E+05	2.29E+04	1.06E+05	1.93E+04	9.02E+04	1.61E+04	7.53E+04
1.80	1.91E+04	8.85E+04	1.67E+04	7.74E+04	1.44E+04	6.68E+04	1.21E+04	5.65E+04	1.01E+04	4.71E+04
1.90	1.20E+04	5.57E+04	1.05E+04	4.87E+04	9.02E+03	4.19E+04	7.61E+03	3.55E+04	6.31E+03	2.95E+04
2.00	7.57E+03	3.51E+04	6.60E+03	3.06E+04	5.66E+03	2.63E+04	4.77E+03	2.23E+04	3.95E+03	1.85E+04
2.50	7.45E+02	3.46E+03	6.48E+02	3.01E+03	5.53E+02	2.57E+03	4.64E+02	2.16E+03	3.82E+02	1.78E+03
3.00	7.33E+01	3.40E+02	6.36E+01	2.95E+02	5.41E+01	2.52E+02	4.51E+01	2.10E+02	3.69E+01	1.72E+02
3.50	7.20E+00	3.34E+01	6.23E+00	2.89E+01	5.29E+00	2.46E+01	4.40E+00	2.05E+01	3.58E+00	1.67E+01
4.00	7.07E-01	3.28E+00	6.11E-01	2.84E+00	5.17E-01	2.40E+00	4.28E-01	1.99E+00	3.48E-01	1.62E+00
5.00	6.81E-03	3.16E-02	5.86E-03	2.72E-02	4.93E-03	2.29E-02	4.07E-03	1.89E-02	3.28E-03	1.53E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 1.50

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	5.20E+07	6.63E+08	4.94E+07	7.87E+08	4.73E+07	9.05E+08	4.51E+07	1.01E+09	4.39E+07	1.13E+09
.02	4.69E+07	4.08E+08	4.36E+07	4.49E+08	4.08E+07	4.86E+08	3.80E+07	5.15E+08	3.62E+07	5.52E+08
.03	4.33E+07	3.19E+08	3.97E+07	3.34E+08	3.67E+07	3.48E+08	3.38E+07	3.57E+08	3.17E+07	3.71E+08
.04	4.04E+07	2.70E+08	3.67E+07	2.74E+08	3.36E+07	2.78E+08	3.06E+07	2.79E+08	2.85E+07	2.83E+08
.05	3.79E+07	2.38E+08	3.42E+07	2.36E+08	3.11E+07	2.35E+08	2.81E+07	2.31E+08	2.59E+07	2.30E+08
.10	2.84E+07	1.55E+08	2.50E+07	1.45E+08	2.23E+07	1.36E+08	1.97E+07	1.27E+08	1.77E+07	1.20E+08
.20	1.69E+07	8.52E+07	1.45E+07	7.59E+07	1.27E+07	6.80E+07	1.09E+07	6.05E+07	9.61E+06	5.49E+07
.30	1.02E+07	5.04E+07	8.72E+06	4.39E+07	7.49E+06	3.85E+07	6.38E+06	3.35E+07	5.54E+06	2.97E+07
.40	6.29E+06	3.35E+07	5.30E+06	2.62E+07	4.51E+06	2.26E+07	3.81E+06	1.94E+07	3.27E+06	1.70E+07
.50	3.88E+06	1.87E+07	3.25E+06	1.58E+07	2.74E+06	1.36E+07	2.30E+06	1.15E+07	1.96E+06	9.95E+06
.60	2.40E+06	1.15E+07	2.00E+06	9.67E+06	1.68E+06	8.21E+06	1.40E+06	6.92E+06	1.18E+06	5.93E+06
.70	1.49E+06	7.09E+06	1.23E+06	5.94E+06	1.03E+06	5.01E+06	8.54E+05	4.19E+06	7.20E+05	3.57E+06
.80	9.25E+05	4.39E+06	7.63E+05	3.66E+06	6.35E+05	3.07E+06	5.24E+05	2.55E+06	4.40E+05	2.16E+06
.90	5.75E+05	2.73E+06	4.73E+05	2.26E+06	3.92E+05	1.89E+06	3.22E+05	1.56E+06	2.69E+05	1.32E+06
1.00	3.58E+05	1.69E+06	2.94E+05	1.40E+06	2.43E+05	1.16E+06	1.99E+05	9.59E+05	1.65E+05	8.05E+05
1.10	2.23E+05	1.05E+06	1.82E+05	8.67E+05	1.50E+05	7.19E+05	1.23E+05	5.90E+05	1.02E+05	4.93E+05
1.20	1.39E+05	6.57E+05	1.13E+05	5.38E+05	9.32E+04	4.45E+05	7.59E+04	3.64E+05	6.28E+04	3.03E+05
1.30	8.69E+04	4.09E+05	7.06E+04	3.35E+05	5.78E+04	2.75E+05	4.70E+04	2.25E+05	3.88E+04	1.87E+05
1.40	5.42E+04	2.55E+05	4.40E+04	2.08E+05	3.59E+04	1.71E+05	2.91E+04	1.39E+05	2.40E+04	1.15E+05
1.50	3.39E+04	1.59E+05	2.74E+04	1.30E+05	2.23E+04	1.06E+05	1.81E+04	8.62E+04	1.48E+04	7.11E+04
1.60	2.12E+04	9.95E+04	1.71E+04	8.07E+04	1.39E+04	6.59E+04	1.12E+04	5.34E+04	9.19E+03	4.40E+04
1.70	1.32E+04	6.21E+04	1.07E+04	5.03E+04	8.66E+03	4.10E+04	6.97E+03	3.31E+04	5.70E+03	2.72E+04
1.80	8.27E+03	3.88E+04	6.65E+03	3.13E+04	5.39E+03	2.55E+04	4.33E+03	2.06E+04	3.54E+03	1.69E+04
1.90	5.17E+03	2.43E+04	4.15E+03	1.96E+04	3.36E+03	1.59E+04	2.69E+03	1.28E+04	2.20E+03	1.05E+04
2.00	3.23E+03	1.52E+04	2.59E+03	1.22E+04	2.09E+03	9.90E+03	1.68E+03	7.95E+03	1.36E+03	6.49E+03
2.50	3.10E+02	1.45E+03	2.47E+02	1.16E+03	1.98E+02	9.33E+02	1.58E+02	7.44E+02	1.27E+02	6.02E+02
3.00	2.99E+01	1.40E+02	2.36E+01	1.11E+02	1.99E+01	8.87E+01	1.49E+01	7.02E+01	1.20E+01	5.65E+01
3.50	2.88E+00	1.35E+01	2.27E+00	1.06E+01	1.80E+00	8.46E+00	1.42E+00	6.66E+00	1.13E+00	5.33E+00
4.00	2.79E-01	1.30E+00	2.19E-01	1.02E+00	1.73E-01	8.10E-01	1.35E-01	6.35E-01	1.07E-01	5.05E-01
5.00	2.62E-03	1.22E-02	2.04E-03	9.52E-03	1.60E-03	7.48E-03	1.24E-03	5.82E-03	9.79E-04	4.59E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.50$$

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(E)
.01	4.12E+07	1.21E+09	3.89E+07	1.27E+09	3.71E+07	1.34E+09	3.39E+07	1.34E+09	3.34E+07	1.44E+09
.02	3.32E+07	5.64E+08	3.06E+07	5.72E+08	2.84E+07	5.82E+08	2.54E+07	5.62E+08	2.44E+07	5.84E+08
.03	2.86E+07	3.69E+08	2.60E+07	3.65E+08	2.39E+07	3.63E+08	2.10E+07	3.43E+08	2.00E+07	3.49E+08
.04	2.55E+07	2.76E+08	2.29E+07	2.68E+08	2.08E+07	2.61E+08	1.81E+07	2.43E+08	1.71E+07	2.43E+08
.05	2.30E+07	2.21E+08	2.06E+07	2.11E+08	1.85E+07	2.03E+08	1.60E+07	1.86E+08	1.49E+07	1.85E+08
.10	1.54E+07	1.09E+08	1.34E+07	1.00E+08	1.18E+07	9.21E+07	9.95E+06	8.11E+07	9.07E+06	7.71E+07
.20	8.13E+06	4.78E+07	6.93E+06	4.20E+07	5.95E+06	3.71E+07	4.90E+06	3.14E+07	4.36E+06	2.87E+07
.30	4.62E+06	2.53E+07	3.68E+06	2.17E+07	3.29E+06	1.87E+07	2.67E+06	1.55E+07	2.34E+06	1.39E+07
.40	2.70E+06	1.42E+07	2.25E+06	1.20E+07	1.88E+06	1.03E+07	1.52E+06	8.39E+06	1.32E+06	7.39E+06
.50	1.61E+06	8.26E+06	1.33E+06	6.92E+06	1.10E+06	5.83E+06	8.82E+05	4.72E+06	7.59E+05	4.12E+06
.60	9.64E+05	4.88E+06	7.92E+05	4.05E+06	6.54E+05	3.39E+06	5.20E+05	2.72E+06	4.44E+05	2.35E+06
.70	5.83E+05	2.92E+06	4.76E+05	2.41E+06	3.91E+05	2.00E+06	3.09E+05	1.59E+06	2.63E+05	1.37E+06
.80	3.54E+05	1.76E+06	2.88E+05	1.44E+06	2.36E+05	1.19E+06	1.85E+05	9.43E+05	1.57E+05	8.05E+05
.90	2.16E+05	1.06E+06	1.75E+05	8.69E+05	1.43E+05	7.13E+05	1.12E+05	5.63E+05	9.42E+04	4.78E+05
1.00	1.32E+05	6.48E+05	1.07E+05	5.26E+05	8.16E+04	4.30E+05	6.76E+04	3.38E+05	5.68E+04	2.86E+05
1.10	8.11E+04	3.96E+05	6.53E+04	3.20E+05	5.28E+04	2.61E+05	4.11E+04	2.04E+05	3.44E+04	1.72E+05
1.20	4.99E+04	2.42E+05	4.00E+04	1.95E+05	3.22E+04	1.58E+05	2.50E+04	1.24E+05	2.09E+04	1.04E+05
1.30	3.07E+04	1.49E+05	2.46E+04	1.20E+05	1.97E+04	9.66E+04	1.53E+04	7.52E+04	1.27E+04	6.29E+04
1.40	1.89E+04	9.14E+04	1.51E+04	7.33E+04	1.21E+04	5.91E+04	9.35E+03	4.58E+04	7.77E+03	3.83E+04
1.50	1.17E+04	5.63E+04	9.31E+03	4.50E+04	7.44E+03	3.62E+04	5.73E+03	2.80E+04	4.75E+03	2.33E+04
1.60	7.23E+03	3.47E+04	5.74E+03	2.77E+04	4.58E+03	2.22E+04	3.52E+03	1.71E+04	2.91E+03	1.42E+04
1.70	4.47E+03	2.14E+04	3.54E+03	1.71E+04	2.82E+03	1.37E+04	2.16E+03	1.05E+04	1.79E+03	8.71E+03
1.80	2.77E+03	1.33E+04	2.19E+03	1.05E+04	1.74E+03	8.40E+03	1.33E+03	6.46E+03	1.10E+03	5.34E+03
1.90	1.72E+03	8.20E+03	1.36E+03	6.50E+03	1.07E+03	5.18E+03	8.21E+02	3.97E+03	6.75E+02	3.27E+03
2.00	1.06E+03	5.08E+03	8.39E+02	4.02E+03	6.64E+02	3.19E+03	5.07E+02	2.44E+03	4.15E+02	2.01E+03
2.50	9.84E+01	4.68E+02	7.70E+01	3.67E+02	6.05E+01	2.89E+02	4.58E+01	2.19E+02	3.73E+01	1.79E+02
3.00	9.20E+00	4.35E+01	7.15E+00	3.39E+01	5.58E+00	2.65E+01	3.20E+00	2.00E+01	3.39E+00	1.62E+01
3.50	8.65E+01	4.08E+00	6.69E+01	3.19E+00	5.19E+01	2.46E+00	3.89E+01	1.85E+01	3.13E+01	1.49E+01
4.00	8.18E+02	3.85E+01	6.30E+02	2.97E+01	4.87E+02	2.30E+01	3.63E+02	1.72E+01	2.90E+02	1.38E+01
5.00	7.39E+04	3.48E+03	5.65E+04	2.66E+03	4.33E+04	2.04E+03	3.21E+04	1.51E+03	2.54E+04	1.20E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.75$ 

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.04E+07	1.31E+09	3.48E+07	1.26E+09	3.81E+07	1.13E+09	4.31E+07	9.90E+08	4.67E+07	7.40E+08
.02	2.22E+07	5.30E+08	2.66E+07	5.46E+08	3.06E+07	5.25E+08	3.63E+07	5.01E+08	4.12E+07	4.23E+08
.03	1.81E+07	3.17E+08	2.24E+07	3.40E+08	2.64E+07	3.43E+08	3.21E+07	3.46E+08	3.76E+07	3.15E+08
.04	1.55E+07	2.21E+08	1.95E+07	2.45E+08	2.34E+07	2.56E+08	2.91E+07	2.69E+08	3.48E+07	2.59E+08
.05	1.36E+07	1.68E+08	1.73E+07	1.90E+08	2.12E+07	2.04E+08	2.67E+07	2.22E+08	3.24E+07	2.23E+08
.10	8.23E+06	7.00E+07	1.10E+07	8.62E+07	1.41E+07	1.01E+08	1.86E+07	1.21E+08	2.37E+07	1.37E+08
.20	3.96E+06	2.60E+07	5.56E+06	3.47E+07	7.45E+06	4.40E+07	1.03E+07	5.73E+07	1.38E+07	7.19E+07
.30	2.13E+06	1.26E+07	3.07E+06	1.75E+07	4.23E+06	2.32E+07	6.01E+06	3.16E+07	8.28E+06	4.16E+07
.40	1.20E+06	6.71E+06	1.76E+06	9.59E+06	2.47E+06	1.30E+07	3.58E+06	1.83E+07	5.04E+06	2.48E+07
.50	6.89E+05	3.74E+06	1.03E+06	5.44E+06	1.47E+06	7.56E+06	2.16E+06	1.08E+07	3.08E+06	1.50E+07
.60	4.04E+05	2.14E+06	6.10E+05	3.16E+06	8.81E+05	4.46E+06	1.31E+06	6.50E+06	1.90E+06	9.18E+06
.70	2.39E+05	1.24E+06	3.65E+05	1.86E+06	5.32E+05	2.67E+06	8.01E+05	3.93E+06	1.17E+06	5.64E+06
.80	1.43E+05	7.31E+05	2.20E+05	1.11E+06	3.23E+05	1.61E+06	4.91E+05	2.39E+06	7.25E+05	3.47E+06
.90	8.55E+04	4.34E+05	1.33E+05	6.65E+05	1.97E+05	9.72E+05	3.02E+05	1.46E+06	4.49E+05	2.15E+06
1.00	5.16E+04	2.60E+05	8.08E+04	4.01E+05	1.21E+05	5.91E+05	1.86E+05	8.98E+05	2.79E+05	1.33E+06
1.10	3.12E+04	1.56E+05	4.92E+04	2.43E+05	7.40E+04	3.61E+05	1.15E+05	5.52E+05	1.73E+05	8.24E+05
1.20	1.90E+04	9.43E+04	3.01E+04	1.48E+05	4.55E+04	2.21E+05	7.09E+04	3.41E+05	1.08E+05	5.12E+05
1.30	1.16E+04	5.72E+04	1.84E+04	9.01E+04	2.80E+04	1.36E+05	4.39E+04	2.10E+05	6.71E+04	3.18E+05
1.40	7.05E+03	3.47E+04	1.13E+04	5.51E+04	1.73E+04	8.33E+04	2.72E+04	1.30E+05	4.18E+04	1.98E+05
1.50	4.31E+03	2.12E+04	6.94E+03	3.38E+04	1.07E+04	5.13E+04	1.69E+04	8.05E+04	2.61E+04	1.23E+05
1.60	2.64E+03	1.29E+04	4.27E+03	2.07E+04	6.58E+03	3.16E+04	1.05E+04	4.99E+04	1.62E+04	7.67E+04
1.70	1.62E+03	7.91E+03	2.63E+03	1.27E+04	4.07E+03	1.95E+04	6.50E+03	3.09E+04	1.01E+04	4.78E+04
1.80	9.96E+02	4.65E+03	1.62E+03	7.84E+03	2.52E+03	1.21E+04	4.04E+03	1.92E+04	6.32E+03	2.98E+04
1.90	6.13E+02	2.97E+03	1.00E+03	4.83E+03	1.56E+03	7.47E+03	2.51E+03	1.19E+04	3.95E+03	1.86E+04
2.00	3.77E+02	1.83E+03	6.19E+02	2.98E+03	9.69E+02	4.63E+03	1.56E+03	7.41E+03	2.47E+03	1.16E+04
2.50	3.38E+01	1.63E+02	5.64E+01	2.69E+02	8.95E+01	4.25E+02	1.47E+02	6.93E+02	2.35E+02	1.10E+03
3.00	3.08E+00	1.47E+01	5.20E+00	2.47E+01	8.36E+00	3.96E+01	1.39E+01	6.53E+01	2.25E+01	1.05E+02
3.50	2.84E-01	1.35E+00	4.64E-01	2.30E+00	7.86E-01	3.71E+00	1.32E+00	6.19E+00	2.16E+00	1.01E+01
4.00	2.64E-02	1.25E-01	4.53E-02	2.15E-01	7.43E-02	3.50E-01	1.26E-01	5.90E-01	2.08E-01	9.74E-01
5.00	2.31E-04	1.09E-03	4.03E-04	1.90E-03	6.71E-04	3.16E-03	1.15E-03	5.40E-03	1.94E-03	9.06E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 1.75$$

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	5.12E+07	5.15E+08	5.63E+07	3.01E+08	6.20E+07	1.95E+08	6.41E+07	1.12E+08	6.36E+07	6.04E+07
.02	4.71E+07	3.46E+08	5.35E+07	2.68E+08	5.98E+07	2.33E+08	6.25E+07	2.00E+08	6.22E+07	1.74E+08
.03	4.40E+07	2.84E+08	5.09E+07	2.49E+08	5.75E+07	2.39E+08	6.03E+07	2.22E+08	6.03E+07	2.06E+08
.04	4.13E+07	2.48E+08	4.65E+07	2.34E+08	5.51E+07	2.36E+08	5.81E+07	2.28E+08	5.82E+07	2.17E+08
.05	3.90E+07	2.23E+08	4.62E+07	2.21E+08	5.28E+07	2.30E+08	5.58E+07	2.27E+08	5.60E+07	2.19E+08
.10	2.98E+07	1.54E+08	3.65E+07	1.72E+08	4.23E+07	1.90E+08	4.51E+07	1.97E+08	4.55E+07	1.95E+08
.20	1.80E+07	8.86E+07	2.28E+07	1.07E+08	2.68E+07	1.23E+08	2.89E+07	1.30E+08	2.93E+07	1.31E+08
.30	1.11E+07	5.34E+07	1.43E+07	6.47E+07	1.69E+07	7.80E+07	1.84E+07	8.37E+07	1.87E+07	8.47E+07
.40	6.84E+06	3.27E+07	8.95E+06	4.18E+07	1.07E+07	4.93E+07	1.16E+07	5.35E+07	1.19E+07	5.41E+07
.50	4.24E+06	2.02E+07	5.61E+06	2.62E+07	6.74E+06	3.11E+07	7.36E+06	3.38E+07	7.52E+06	3.44E+07
.60	2.64E+06	1.25E+07	3.52E+06	1.64E+07	4.24E+06	1.96E+07	4.64E+06	2.14E+07	4.75E+06	2.18E+07
.70	1.64E+06	7.77E+06	2.21E+06	1.03E+07	2.67E+06	1.24E+07	2.93E+06	1.35E+07	3.00E+06	1.38E+07
.80	1.03E+06	4.84E+06	1.39E+06	6.45E+06	1.68E+06	7.78E+06	1.85E+06	8.53E+06	1.90E+06	8.73E+06
.90	6.40E+05	3.01E+06	8.69E+05	4.05E+06	1.06E+06	4.90E+06	1.16E+06	5.38E+06	1.20E+06	5.51E+06
1.00	4.00E+05	1.88E+06	5.46E+05	2.54E+06	6.65E+05	3.08E+06	7.33E+05	3.39E+06	7.54E+05	3.48E+06
1.10	2.50E+05	1.17E+06	3.42E+05	1.59E+06	4.18E+05	1.94E+06	4.62E+05	2.14E+06	4.75E+05	2.19E+06
1.20	1.56E+05	7.33E+05	2.15E+05	1.00E+06	2.63E+05	1.22E+06	2.91E+05	1.35E+06	2.99E+05	1.38E+06
1.30	9.76E+04	4.58E+05	1.35E+05	6.28E+05	1.65E+05	7.68E+05	1.83E+05	8.48E+05	1.89E+05	8.72E+05
1.40	6.11E+04	2.86E+05	8.47E+04	3.94E+05	1.04E+05	4.83E+05	1.15E+05	5.34E+05	1.19E+05	5.49E+05
1.50	3.82E+04	1.79E+05	5.32E+04	2.48E+05	6.54E+04	3.04E+05	7.25E+04	3.36E+05	7.48E+04	3.46E+05
1.60	2.39E+04	1.12E+05	3.34E+04	1.55E+05	4.11E+04	1.91E+05	4.56E+04	2.13E+05	4.71E+04	2.18E+05
1.70	1.50E+04	7.01E+04	2.10E+04	9.75E+04	2.58E+04	1.20E+05	2.87E+04	1.33E+05	2.96E+04	1.37E+05
1.80	9.37E+03	4.39E+04	1.32E+04	6.12E+04	1.62E+04	7.54E+04	1.81E+04	8.37E+04	1.87E+04	8.64E+04
1.90	5.87E+03	2.75E+04	8.26E+03	3.84E+04	1.02E+04	4.74E+04	1.14E+04	5.27E+04	1.17E+04	5.44E+04
2.00	3.68E+03	1.72E+04	5.18E+03	2.41E+04	6.42E+03	2.98E+04	7.15E+03	3.31E+04	7.39E+03	3.42E+04
2.50	3.55E+02	1.66E+03	5.06E+02	2.35E+03	6.29E+02	2.92E+03	7.03E+02	3.26E+03	7.28E+02	3.38E+03
3.00	3.43E+01	1.60E+02	4.94E+01	2.30E+02	6.17E+01	2.87E+02	6.91E+01	3.21E+02	7.16E+01	3.32E+02
3.50	3.33E+00	1.55E+01	4.82E+00	2.24E+01	6.04E+00	2.81E+01	6.78E+00	3.15E+01	7.04E+00	3.27E+01
4.00	3.23E-01	1.51E+00	4.71E-01	2.19E+00	5.92E-01	2.75E+00	6.65E-01	3.09E+00	6.91E-01	3.21E+00
5.00	3.05E-03	1.42E-02	4.49E-03	2.09E-02	5.67E-03	2.63E-02	6.39E-03	2.97E-02	6.66E-03	3.09E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 1.75

L.T. = E (MeV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	5.97E+07	6.88E+07	5.58E+07	1.37E+08	5.38E+07	2.50E+08	5.15E+07	3.63E+08	4.94E+07	4.87E+08
.02	5.84E+07	1.70E+08	5.41E+07	1.92E+08	5.14E+07	2.39E+08	4.84E+07	2.83E+08	4.55E+07	3.30E+08
.03	5.66E+07	1.97E+08	5.21E+07	2.04E+08	4.90E+07	2.28E+08	4.57E+07	2.49E+08	4.26E+07	2.72E+08
.04	5.45E+07	2.06E+08	5.00E+07	2.05E+08	4.68E+07	2.18E+08	4.33E+07	2.28E+08	4.00E+07	2.38E+08
.05	5.25E+07	2.07E+08	4.80E+07	2.02E+08	4.47E+07	2.06E+08	4.12E+07	2.11E+08	3.78E+07	2.15E+08
.10	4.26E+07	1.83E+08	3.86E+07	1.71E+08	3.54E+07	1.65E+08	3.21E+07	1.57E+08	2.89E+07	1.49E+08
.20	2.74E+07	1.23E+08	2.46E+07	1.12E+08	2.22E+07	1.03E+08	1.98E+07	9.45E+07	1.75E+07	8.59E+07
.30	1.75E+07	7.92E+07	1.56E+07	7.14E+07	1.40E+07	6.50E+07	1.23E+07	5.83E+07	1.08E+07	5.19E+07
.40	1.11E+07	5.06E+07	9.86E+06	4.53E+07	8.77E+06	4.08E+07	7.69E+06	3.62E+07	6.65E+06	3.18E+07
.50	7.01E+06	3.21E+07	6.23E+06	2.87E+07	5.51E+06	2.56E+07	4.80E+06	2.26E+07	4.13E+06	1.96E+07
.60	4.43E+06	2.04E+07	3.93E+06	1.81E+07	3.46E+06	1.61E+07	3.00E+06	1.41E+07	2.57E+06	1.22E+07
.70	2.80E+06	1.29E+07	2.47E+06	1.14E+07	2.17E+06	1.01E+07	1.88E+06	8.80E+06	1.60E+06	7.57E+06
.80	1.77E+06	8.14E+06	1.56E+06	7.20E+06	1.37E+06	6.35E+06	1.18E+06	5.51E+06	9.99E+05	4.71E+06
.90	1.11E+06	5.14E+06	9.81E+05	4.54E+06	8.57E+05	3.99E+06	7.37E+05	3.45E+06	6.23E+05	2.94E+06
1.00	7.02E+05	3.24E+06	6.18E+05	2.86E+06	5.39E+05	2.50E+06	4.62E+05	2.16E+06	3.89E+05	1.83E+06
1.10	4.43E+05	2.04E+06	3.89E+05	1.80E+06	3.38E+05	1.57E+06	2.89E+05	1.35E+06	2.43E+05	1.14E+06
1.20	2.79E+05	1.29E+06	2.45E+05	1.13E+06	2.12E+05	9.88E+05	1.81E+05	8.47E+05	1.52E+05	7.14E+05
1.30	1.76E+05	8.12E+05	1.54E+05	7.13E+05	1.33E+05	6.21E+05	1.14E+05	5.71E+05	9.52E+04	4.46E+05
1.40	1.11E+05	5.11E+05	9.68E+04	4.49E+05	8.38E+04	3.90E+05	7.12E+04	3.33E+05	5.95E+04	2.79E+05
1.50	6.96E+04	3.22E+05	6.09E+04	2.82E+05	5.26E+04	2.45E+05	4.47E+04	2.08E+05	3.73E+04	1.75E+05
1.60	4.38E+04	2.03E+05	3.83E+04	1.78E+05	3.31E+04	1.54E+05	2.80E+04	1.31E+05	2.33E+04	1.09E+05
1.70	2.76E+04	1.28E+05	2.41E+04	1.12E+05	2.08E+04	9.66E+04	1.76E+04	8.20E+04	1.46E+04	6.84E+04
1.80	1.74E+04	8.04E+04	1.52E+04	7.03E+04	1.30E+04	6.06E+04	1.10E+04	5.14E+04	9.14E+03	4.28E+04
1.90	1.09E+04	5.06E+04	9.53E+03	4.42E+04	8.19E+03	3.81E+04	6.91E+03	3.22E+04	5.73E+03	2.68E+04
2.00	6.87E+03	3.18E+04	5.99E+03	2.78E+04	5.14E+03	2.39E+04	4.31E+03	2.02E+04	3.59E+03	1.68E+04
2.50	6.77E+02	3.14E+03	5.88E+02	2.73E+03	5.03E+02	2.34E+03	4.21E+02	1.96E+03	3.46E+02	1.62E+03
3.00	6.66E+01	3.09E+02	5.77E+01	2.68E+02	4.91E+01	2.28E+02	4.10E+01	1.91E+02	3.35E+01	1.57E+02
3.50	6.54E+00	3.04E+01	5.66E+00	2.63E+01	4.80E+00	2.23E+01	3.99E+00	1.86E+01	3.25E+00	1.52E+01
4.00	6.42E-01	2.98E+00	5.55E-01	2.58E+00	4.69E-01	2.18E+00	3.89E-01	1.81E+00	3.16E-01	1.47E+00
5.00	6.18E-03	2.87E-02	5.32E-03	2.47E-02	4.48E-03	2.08E-02	3.69E-03	1.72E-02	2.98E-03	1.39E-02



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.75$ 

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	4.72E+07	6.02E+06	4.48E+07	7.15E+08	4.29E+07	6.22E+08	4.09E+07	9.19E+08	3.99E+07	1.03E+09
.02	4.26E+07	3.71E+08	3.96E+07	4.08E+08	3.71E+07	4.41E+08	3.45E+07	4.68E+08	3.29E+07	5.01E+08
.03	3.94E+07	2.89E+08	3.61E+07	3.04E+08	3.34E+07	3.16E+08	3.07E+07	3.25E+08	2.88E+07	3.37E+08
.04	3.67E+07	2.45E+08	3.33E+07	2.49E+08	3.05E+07	2.53E+08	2.78E+07	2.53E+08	2.58E+07	2.57E+08
.05	3.44E+07	2.16E+08	3.10E+07	2.14E+08	2.82E+07	2.13E+08	2.55E+07	2.10E+08	2.35E+07	2.09E+08
.10	2.58E+07	1.41E+08	2.27E+07	1.31E+08	2.02E+07	1.23E+08	1.79E+07	1.15E+08	1.61E+07	1.09E+08
.20	1.53E+07	7.74E+07	1.32E+07	6.49E+07	1.15E+07	6.18E+07	9.92E+06	5.50E+07	8.73E+06	4.99E+07
.30	9.30E+06	4.58E+07	7.92E+06	3.98E+07	6.40E+06	3.49E+07	5.40E+06	3.04E+07	5.03E+06	2.70E+07
.40	5.71E+06	2.77E+07	4.82E+06	2.38E+07	4.10E+06	2.05E+07	3.46E+06	1.76E+07	2.97E+06	1.54E+07
.50	3.52E+06	1.69E+07	2.95E+06	1.44E+07	2.49E+06	1.23E+07	2.09E+06	1.05E+07	1.78E+06	9.04E+06
.60	2.18E+06	1.04E+07	1.82E+06	8.78E+06	1.52E+06	7.46E+06	1.27E+06	6.28E+06	1.08E+06	5.39E+06
.70	1.35E+06	6.44E+06	1.12E+06	5.39E+06	9.36E+05	4.55E+06	7.76E+05	3.81E+06	6.54E+05	3.24E+06
.80	8.40E+05	3.99E+06	6.93E+05	3.32E+06	5.77E+05	2.79E+06	4.76E+05	2.32E+06	3.99E+05	1.96E+06
.90	5.22E+05	2.48E+06	4.30E+05	2.05E+06	3.56E+05	1.71E+06	2.93E+05	1.42E+06	2.45E+05	1.20E+06
1.00	3.25E+05	1.54E+06	2.67E+05	1.27E+06	2.20E+05	1.06E+06	1.80E+05	8.71E+05	1.50E+05	7.31E+05
1.10	2.03E+05	9.58E+05	1.66E+05	7.87E+05	1.36E+05	6.53E+05	1.11E+05	5.36E+05	9.25E+04	4.48E+05
1.20	1.26E+05	5.97E+05	1.03E+05	4.89E+05	8.46E+04	4.04E+05	6.89E+04	3.31E+05	5.70E+04	2.75E+05
1.30	7.89E+04	3.72E+05	6.41E+04	3.04E+05	5.25E+04	2.50E+05	4.27E+04	2.04E+05	3.52E+04	1.70E+05
1.40	4.93E+04	2.32E+05	3.99E+04	1.89E+05	3.26E+04	1.55E+05	2.64E+04	1.26E+05	2.18E+04	1.05E+05
1.50	3.08E+04	1.45E+05	2.49E+04	1.18E+05	2.03E+04	9.64E+04	1.64E+04	7.82E+04	1.35E+04	6.46E+04
1.60	1.92E+04	9.04E+04	1.55E+04	7.33E+04	1.26E+04	5.94E+04	1.02E+04	4.85E+04	8.35E+03	3.99E+04
1.70	1.20E+04	5.64E+04	9.68E+03	4.57E+04	7.86E+03	3.72E+04	6.33E+03	3.01E+04	5.18E+03	2.47E+04
1.80	7.51E+03	3.53E+04	6.04E+03	2.85E+04	4.90E+03	2.52E+04	3.93E+03	1.87E+04	3.21E+03	1.53E+04
1.90	4.70E+03	2.20E+04	3.77E+03	1.78E+04	3.05E+03	1.44E+04	2.45E+03	1.16E+04	1.99E+03	9.50E+03
2.00	2.94E+03	1.38E+04	2.35E+03	1.11E+04	1.90E+03	8.99E+03	1.52E+03	7.22E+03	1.24E+03	5.89E+03
2.50	2.71E+02	1.32E+03	2.24E+02	1.05E+03	1.80E+02	8.48E+02	1.43E+02	6.76E+02	1.15E+02	5.47E+02
3.00	2.62E+00	1.27E+02	2.15E+01	1.01E+02	1.71E+01	8.05E+01	1.35E+01	6.37E+01	1.09E+01	5.13E+01
3.50	2.53E-01	1.22E+01	2.06E+00	9.66E+00	1.64E+00	7.68E+00	1.29E+00	6.05E+00	1.03E+00	4.84E+00
4.00	2.38E-03	1.18E+00	1.99E-01	9.29E-01	1.57E-01	7.36E-01	1.23E-01	5.77E-01	9.76E-02	4.59E-01
5.00		1.11E-02	1.85E-03	8.64E-03	1.45E-03	6.79E-03	1.13E-03	5.28E-03	8.89E-04	4.17E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 1.75$ 

L.T. = E (MEV)	20.0			21.0			22.0			23.0			24.0		
	J(*E)	J(E)	J(*E)	J(*E)	J(F)	J(F)	J(*E)	J(F)	J(F)	J(*E)	J(E)	J(E)	J(*E)	J(E)	J(E)
.01	3.74E+07	1.10E+09	3.53E+07	1.16E+09	3.37E+07	1.22E+09	3.08E+07	1.22E+09	3.08E+07	3.08E+07	1.22E+09	3.04E+07	3.04E+07	1.31E+09	1.31E+09
.02	3.01E+07	5.12E+08	2.78E+07	5.19E+08	2.58E+07	5.28E+08	2.30E+07	5.28E+08	2.30E+07	2.30E+07	5.10E+08	2.22E+07	2.22E+07	5.30E+08	5.30E+08
.03	2.60E+07	3.35E+08	2.36E+07	3.31E+08	2.17E+07	3.29E+08	1.91E+07	3.29E+08	1.91E+07	1.91E+07	3.11E+08	1.81E+07	1.81E+07	3.17E+08	3.17E+08
.04	2.31E+07	2.56E+08	2.08E+07	2.43E+08	1.89E+07	2.37E+08	1.65E+07	2.37E+08	1.65E+07	1.65E+07	2.21E+08	1.55E+07	1.55E+07	2.21E+08	2.21E+08
.05	2.09E+07	2.00E+08	1.87E+07	1.92E+08	1.68E+07	1.84E+08	1.45E+07	1.84E+08	1.45E+07	1.45E+07	1.69E+08	1.36E+07	1.36E+07	1.68E+08	1.68E+08
.10	1.39E+07	9.03E+07	1.22E+07	9.08E+07	1.07E+07	8.36E+07	9.04E+06	8.36E+07	9.04E+06	9.04E+06	7.37E+07	8.23E+06	8.23E+06	7.00E+07	7.00E+07
.20	7.38E+06	4.34E+07	6.29E+06	3.81E+07	5.40E+06	3.37E+07	4.45E+06	3.37E+07	4.45E+06	4.45E+06	2.85E+07	3.96E+06	3.96E+06	2.60E+07	2.60E+07
.30	4.19E+06	2.30E+07	3.53E+06	1.97E+07	2.98E+06	1.70E+07	2.43E+06	1.70E+07	2.43E+06	2.43E+06	1.41E+07	2.13E+06	2.13E+06	1.26E+07	1.26E+07
.40	2.45E+06	1.29E+07	2.04E+06	1.09E+07	1.71E+06	9.31E+06	1.38E+06	9.31E+06	1.38E+06	1.38E+06	7.62E+06	1.20E+06	1.20E+06	6.71E+06	6.71E+06
.50	1.46E+06	7.50E+06	1.21E+06	6.28E+06	1.00E+06	5.29E+06	8.11E+05	5.29E+06	8.11E+05	8.11E+05	4.28E+06	6.89E+05	6.89E+05	3.74E+06	3.74E+06
.60	8.76E+05	4.43E+06	7.19E+05	3.68E+06	5.94E+05	3.07E+06	4.72E+05	3.07E+06	4.72E+05	4.72E+05	2.47E+06	4.04E+05	4.04E+05	2.14E+06	2.14E+06
.70	5.29E+05	2.65E+06	4.33E+05	2.19E+06	3.55E+05	1.81E+06	2.81E+05	1.81E+06	2.81E+05	2.81E+05	1.45E+06	2.39E+05	2.39E+05	1.24E+06	1.24E+06
.80	3.22E+05	1.60E+06	2.62E+05	1.31E+06	2.14E+05	1.08E+06	1.68E+05	1.08E+06	1.68E+05	1.68E+05	8.56E+05	1.43E+05	1.43E+05	7.31E+05	7.31E+05
.90	1.96E+05	9.67E+05	1.59E+05	7.89E+05	1.29E+05	6.47E+05	1.01E+05	6.47E+05	1.01E+05	1.01E+05	5.11E+05	8.55E+04	8.55E+04	4.34E+05	4.34E+05
1.00	1.20E+05	5.28E+05	9.69E+04	4.78E+05	7.86E+04	3.91E+05	6.14E+04	3.91E+05	6.14E+04	6.14E+04	3.07E+05	5.16E+04	5.16E+04	2.60E+05	2.60E+05
1.10	7.37E+04	3.59E+05	5.93E+04	2.91E+05	4.79E+04	2.37E+05	3.73E+04	2.37E+05	3.73E+04	3.73E+04	1.85E+05	3.12E+04	3.12E+04	1.56E+05	1.56E+05
1.20	4.53E+04	2.20E+05	3.63E+04	1.77E+05	2.43E+04	1.44E+05	2.27E+04	1.44E+05	2.27E+04	2.27E+04	1.12E+05	1.90E+04	1.90E+04	9.43E+04	9.43E+04
1.30	2.79E+04	1.35E+05	2.23E+04	1.09E+05	1.79E+04	8.78E+04	1.39E+04	8.78E+04	1.39E+04	1.39E+04	6.83E+04	1.16E+04	1.16E+04	5.72E+04	5.72E+04
1.40	1.72E+04	8.30E+04	1.37E+04	6.66E+04	1.10E+04	5.36E+04	8.49E+03	5.36E+04	8.49E+03	8.49E+03	4.16E+04	7.05E+03	7.05E+03	3.47E+04	3.47E+04
1.50	1.06E+04	5.11E+04	8.45E+03	4.09E+04	6.76E+03	3.29E+04	5.21E+03	3.29E+04	5.21E+03	5.21E+03	2.54E+04	4.31E+03	4.31E+03	2.12E+04	2.12E+04
1.60	6.56E+03	2.15E+04	5.21E+03	2.52E+04	4.16E+03	2.02E+04	3.20E+03	2.02E+04	3.20E+03	3.20E+03	1.56E+04	2.64E+03	2.64E+03	1.29E+04	1.29E+04
1.70	4.06E+03	1.95E+04	3.22E+03	1.55E+04	2.56E+03	1.24E+04	1.97E+03	1.24E+04	1.97E+03	1.97E+03	9.55E+03	1.62E+03	1.62E+03	7.91E+03	7.91E+03
1.80	2.51E+03	1.20E+04	1.59E+03	5.56E+03	1.58E+03	7.63E+03	1.21E+03	7.63E+03	1.21E+03	1.21E+03	5.86E+03	9.96E+02	9.96E+02	4.85E+03	4.85E+03
1.90	1.56E+03	7.45E+03	1.23E+03	3.91E+03	9.76E+02	4.70E+03	7.46E+02	4.70E+03	7.46E+02	7.46E+02	3.61E+03	6.13E+02	6.13E+02	2.97E+03	2.97E+03
2.00	9.66E+02	4.61E+03	7.62E+02	3.65E+03	6.03E+02	2.90E+03	4.60E+02	2.90E+03	4.60E+02	4.60E+02	2.22E+03	3.77E+02	3.77E+02	1.83E+03	1.83E+03
2.50	8.94E+01	4.25E+02	6.99E+01	3.33E+02	5.49E+01	2.62E+02	4.16E+01	2.62E+02	4.16E+01	4.16E+01	1.99E+02	3.38E+01	3.38E+01	1.63E+02	1.63E+02
3.00	8.35E+00	3.05E+01	6.49E+00	3.04E+01	5.07E+00	2.41E+01	3.81E+00	2.41E+01	3.81E+00	3.81E+00	1.82E+01	3.08E+00	3.08E+00	1.47E+01	1.47E+01
3.50	7.66E-01	3.71E+00	6.08E-01	2.68E+00	4.72E-01	2.24E+00	3.53E-01	2.24E+00	3.53E-01	3.53E-01	1.68E+00	2.84E-01	2.84E-01	1.35E+00	1.35E+00
4.00	7.43E-02	3.66E-01	5.72E-02	2.70E-01	4.42E-02	2.09E-01	3.29E-02	2.09E-01	3.29E-02	3.29E-02	1.56E-01	2.64E-02	2.64E-02	1.25E-01	1.25E-01
5.00	6.71E-04	3.16E-03	5.13E-04	2.42E-03	3.93E-04	1.85E-03	2.91E-04	1.85E-03	2.91E-04	2.91E-04	1.37E-03	2.31E-04	2.31E-04	1.09E-03	1.09E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 2.00$$

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	2.79E+07	1.21E+09	3.20E+07	1.16E+09	3.51E+07	1.04E+09	3.97E+07	9.11E+08	4.30E+07	6.81E+08
.02	2.04E+07	4.88E+08	2.45E+07	5.02E+08	2.82E+07	4.83E+08	3.34E+07	4.60E+08	3.79E+07	3.89E+08
.03	1.67E+07	2.92E+08	2.06E+07	3.13E+08	2.43E+07	3.15E+08	2.96E+07	3.18E+08	3.46E+07	2.90E+08
.04	1.42E+07	2.03E+08	1.79E+07	2.25E+08	2.16E+07	2.35E+08	2.68E+07	2.47E+08	3.20E+07	2.38E+08
.05	1.25E+07	1.54E+08	1.59E+07	1.75E+08	1.95E+07	1.88E+08	2.45E+07	2.04E+08	2.98E+07	2.05E+08
.10	7.57E+06	6.44E+07	1.01E+07	7.93E+07	1.30E+07	1.28E+07	1.71E+07	1.11E+08	2.18E+07	1.26E+08
.20	3.64E+06	2.40E+07	5.11E+06	3.19E+07	6.85E+06	4.04E+07	9.48E+06	5.28E+07	1.27E+07	6.61E+07
.30	1.96E+06	1.16E+07	2.82E+06	1.61E+07	3.89E+06	2.13E+07	5.53E+06	2.91E+07	7.62E+06	3.83E+07
.40	1.10E+06	6.18E+06	1.62E+06	8.61E+06	2.27E+06	1.20E+07	3.29E+06	1.68E+07	4.63E+06	2.28E+07
.50	6.34E+05	3.44E+06	9.47E+05	5.01E+06	1.35E+06	6.96E+06	1.99E+06	9.96E+06	2.84E+06	1.38E+07
.60	3.71E+05	1.97E+06	5.62E+05	2.91E+06	8.10E+05	4.11E+06	1.21E+06	5.98E+06	1.75E+06	8.45E+06
.70	2.20E+05	1.14E+06	3.36E+05	1.71E+06	4.90E+05	2.45E+06	7.36E+05	3.62E+06	1.08E+06	5.19E+06
.80	1.31E+05	6.73E+05	2.02E+05	1.02E+06	2.97E+05	1.48E+06	4.51E+05	2.20E+06	6.67E+05	3.20E+06
.90	7.87E+04	4.00E+05	1.22E+05	6.12E+05	1.81E+05	8.94E+05	2.77E+05	1.35E+06	4.13E+05	1.97E+06
1.00	4.75E+04	2.39E+05	7.43E+04	3.69E+05	1.11E+05	5.44E+05	1.71E+05	8.25E+05	2.57E+05	1.22E+06
1.10	2.87E+04	1.44E+05	4.53E+04	2.24E+05	6.81E+04	3.32E+05	1.05E+05	5.08E+05	1.59E+05	7.58E+05
1.20	1.75E+04	8.68E+04	2.77E+04	1.36E+05	4.18E+04	2.03E+05	6.52E+04	3.13E+05	9.92E+04	4.71E+05
1.30	1.06E+04	5.26E+04	1.69E+04	8.29E+04	2.57E+04	1.25E+05	4.04E+04	1.93E+05	6.17E+04	2.92E+05
1.40	6.49E+03	3.20E+04	1.04E+04	5.07E+04	1.59E+04	7.67E+04	2.50E+04	1.20E+05	3.85E+04	1.82E+05
1.50	3.97E+03	1.95E+04	6.39E+03	3.11E+04	9.80E+03	4.72E+04	1.55E+04	7.40E+04	2.40E+04	1.13E+05
1.60	2.43E+03	1.19E+04	3.93E+03	1.91E+04	6.06E+03	2.91E+04	9.63E+03	4.59E+04	1.49E+04	7.06E+04
1.70	1.49E+03	7.28E+03	2.42E+03	1.17E+04	3.75E+03	1.80E+04	5.98E+03	2.85E+04	9.32E+03	4.40E+04
1.80	9.16E+02	4.46E+03	1.49E+03	7.21E+03	2.32E+03	1.11E+04	3.72E+03	1.77E+04	5.82E+03	2.74E+04
1.90	5.64E+02	2.74E+03	9.22E+02	4.44E+03	1.44E+03	6.87E+03	2.31E+03	1.10E+04	3.63E+03	1.71E+04
2.00	3.47E+02	1.68E+03	5.70E+02	2.74E+03	8.91E+02	4.26E+03	1.44E+03	6.82E+03	2.27E+03	1.07E+04
2.50	3.11E+01	1.50E+02	5.19E+01	2.48E+02	8.24E+01	3.91E+02	1.35E+02	6.37E+02	2.16E+02	1.02E+03
3.00	2.84E+00	1.36E+01	4.78E+00	2.28E+01	7.69E+00	3.64E+01	1.28E+01	6.01E+01	2.07E+01	9.70E+01
3.50	2.61E+01	1.24E+00	4.45E+01	2.11E+00	7.23E+01	3.42E+00	1.21E+00	5.70E+00	1.99E+00	9.31E+00
4.00	2.42E+02	1.15E+01	4.17E+02	1.97E+01	6.84E+02	3.22E+01	1.16E+01	5.43E+01	1.91E+01	8.96E+01
5.00	2.12E+04	1.00E+03	3.71E+04	1.75E+03	6.17E+04	2.90E+03	1.06E+03	4.97E+03	1.78E+03	8.33E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 2.00

L.T. ■ E (MeV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	4.71E+07	4.74E+08	5.18E+07	2.77E+08	5.71E+07	1.80E+08	5.90E+07	1.03E+08	5.85E+07	5.56E+07
.02	4.33E+07	3.18E+08	4.92E+07	2.46E+08	5.50E+07	2.15E+08	5.75E+07	1.84E+08	5.73E+07	1.60E+08
.03	4.05E+07	2.61E+08	4.68E+07	2.29E+08	5.29E+07	2.19E+08	5.55E+07	2.05E+08	5.55E+07	1.90E+08
.04	3.80E+07	2.28E+08	4.46E+07	2.15E+08	5.07E+07	2.17E+08	5.34E+07	2.10E+08	5.35E+07	1.99E+08
.05	3.59E+07	2.06E+08	4.25E+07	2.04E+08	4.85E+07	2.11E+08	5.13E+07	2.09E+08	5.15E+07	2.01E+08
.10	2.74E+07	1.42E+08	3.35E+07	1.58E+08	3.89E+07	1.75E+08	4.15E+07	1.81E+08	4.19E+07	1.79E+08
.20	1.66E+07	6.15E+07	2.10E+07	9.82E+07	2.47E+07	1.13E+08	2.66E+07	1.20E+08	2.70E+07	1.21E+08
.30	1.02E+07	4.92E+07	1.31E+07	6.14E+07	1.56E+07	7.17E+07	1.69E+07	7.70E+07	1.72E+07	7.79E+07
.40	6.29E+06	3.01E+07	8.23E+06	3.84E+07	9.83E+06	4.54E+07	1.07E+07	4.90E+07	1.09E+07	4.98E+07
.50	3.90E+06	1.86E+07	5.16E+06	2.41E+07	6.20E+06	2.86E+07	6.77E+06	3.11E+07	6.92E+06	3.17E+07
.60	2.43E+06	1.15E+07	3.24E+06	1.51E+07	3.90E+06	1.81E+07	4.27E+06	1.97E+07	4.37E+06	2.01E+07
.70	1.51E+06	7.15E+06	2.03E+06	9.47E+06	2.46E+06	1.14E+07	2.70E+06	1.24E+07	2.76E+06	1.27E+07
.80	9.43E+05	4.45E+06	1.27E+06	5.94E+06	1.55E+06	7.16E+06	1.70E+06	7.84E+06	1.74E+06	8.03E+06
.90	5.89E+05	2.77E+06	8.60E+05	3.73E+06	9.73E+05	4.51E+06	1.07E+06	4.95E+06	1.10E+06	5.07E+06
1.00	3.68E+05	1.73E+06	5.02E+05	2.34E+06	6.12E+05	2.84E+06	6.75E+05	3.12E+06	6.94E+05	3.20E+06
1.10	2.30E+05	1.08E+06	3.15E+05	1.47E+06	3.85E+05	1.78E+06	4.25E+05	1.97E+06	4.37E+05	2.02E+06
1.20	1.44E+05	6.74E+05	1.98E+05	8.21E+05	2.49E+05	1.12E+06	2.68E+05	1.24E+06	2.75E+05	1.27E+06
1.30	8.98E+04	4.21E+05	1.24E+05	5.78E+05	1.52E+05	7.06E+05	1.68E+05	7.80E+05	1.74E+05	8.02E+05
1.40	5.62E+04	2.63E+05	7.79E+04	3.63E+05	9.57E+04	4.44E+05	1.06E+05	4.91E+05	1.09E+05	5.05E+05
1.50	3.51E+04	1.65E+05	4.89E+04	2.28E+05	6.02E+04	2.79E+05	6.67E+04	3.09E+05	6.88E+04	3.18E+05
1.60	2.20E+04	1.03E+05	3.07E+04	1.43E+05	3.78E+04	1.76E+05	4.20E+04	1.95E+05	4.33E+04	2.00E+05
1.70	1.38E+04	6.45E+04	1.93E+04	8.97E+04	2.38E+04	1.10E+05	2.64E+04	1.22E+05	2.73E+04	1.26E+05
1.80	8.62E+03	4.04E+04	1.21E+04	5.63E+04	1.49E+04	6.94E+04	1.66E+04	7.70E+04	1.72E+04	7.95E+04
1.90	5.40E+03	2.53E+04	7.60E+03	3.59E+04	9.39E+03	4.36E+04	1.05E+04	4.80E+04	1.08E+04	5.00E+04
2.00	3.38E+03	1.58E+04	4.77E+03	2.22E+04	5.90E+03	2.74E+04	6.58E+03	3.05E+04	6.80E+03	3.15E+04
2.50	3.27E+02	1.53E+03	4.65E+02	2.17E+03	5.79E+02	2.69E+03	6.47E+02	3.00E+03	6.70E+02	3.10E+03
3.00	3.16E+01	1.48E+02	4.54E+01	2.11E+02	5.67E+01	2.64E+02	6.35E+01	2.95E+02	6.59E+01	3.06E+02
3.50	3.06E+00	1.43E+01	4.43E+00	2.06E+01	5.56E+00	2.58E+01	6.24E+00	2.90E+01	6.48E+00	3.01E+01
4.00	2.97E-01	1.39E+00	4.33E-01	2.01E+00	5.44E-01	2.53E+00	6.12E-01	2.84E+00	6.36E-01	2.95E+00
5.00	2.80E-03	1.31E-02	4.13E-03	1.92E-02	5.21E-03	2.42E-02	5.88E-03	2.73E-02	6.12E-03	2.84E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 2.00$ 

L.T. = E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	5.50E+07	6.33E+07	5.13E+07	1.26E+08	4.05E+07	2.30E+08	4.74E+07	3.34E+08	4.55E+07	4.48E+08
.02	5.37E+07	1.56E+08	4.97E+07	1.77E+08	4.73E+07	2.20E+08	4.45E+07	2.60E+08	4.19E+07	3.04E+08
.03	5.20E+07	1.81E+08	4.79E+07	1.88E+08	4.51E+07	2.10E+08	4.21E+07	2.29E+08	3.91E+07	2.50E+08
.04	5.02E+07	1.89E+08	4.60E+07	1.69E+08	4.31E+07	2.00E+08	3.99E+07	2.09E+08	3.68E+07	2.19E+08
.05	4.83E+07	1.91E+08	4.41E+07	1.86E+08	4.11E+07	1.91E+08	3.79E+07	1.94E+08	3.47E+07	1.98E+08
.10	3.92E+07	1.69E+08	3.65E+07	1.57E+08	3.26E+07	1.52E+08	2.95E+07	1.44E+08	2.66E+07	1.37E+08
.20	2.52E+07	1.13E+08	2.27E+07	1.03E+08	2.05E+07	9.52E+07	1.82E+07	8.70E+07	1.61E+07	7.90E+07
.30	1.61E+07	7.29E+07	1.44E+07	6.57E+07	1.29E+07	5.98E+07	1.13E+07	5.36E+07	9.89E+06	4.77E+07
.40	1.02E+07	4.65E+07	9.07E+06	4.17E+07	8.07E+06	3.75E+07	7.07E+06	3.33E+07	6.12E+06	2.93E+07
.50	6.45E+06	2.96E+07	5.73E+06	2.64E+07	5.07E+06	2.36E+07	4.42E+06	2.08E+07	3.80E+06	1.81E+07
.60	4.08E+06	1.87E+07	3.61E+06	1.67E+07	3.18E+06	1.48E+07	2.76E+06	1.30E+07	2.36E+06	1.12E+07
.70	2.58E+06	1.18E+07	2.28E+06	1.05E+07	2.00E+06	9.30E+06	1.73E+06	8.10E+06	1.47E+06	5.96E+06
.80	1.62E+06	7.49E+06	1.43E+06	6.63E+06	1.26E+06	5.84E+06	1.09E+06	5.07E+06	9.19E+05	4.33E+06
.90	1.02E+06	4.73E+06	9.03E+05	4.18E+06	7.89E+05	3.67E+06	6.78E+05	3.17E+06	5.73E+05	2.70E+06
1.00	6.46E+05	2.98E+06	5.68E+05	2.63E+06	4.95E+05	2.30E+06	4.25E+05	1.98E+06	3.58E+05	1.68E+06
1.10	4.07E+05	1.88E+06	3.58E+05	1.66E+06	3.11E+05	1.45E+06	2.66E+05	1.24E+06	2.24E+05	1.05E+06
1.20	2.56E+05	1.19E+06	2.25E+05	1.04E+06	1.95E+05	9.09E+05	1.67E+05	7.79E+05	1.40E+05	6.57E+05
1.30	1.62E+05	7.47E+05	1.42E+05	6.56E+05	1.23E+05	5.71E+05	1.05E+05	4.88E+05	8.75E+04	4.11E+05
1.40	1.02E+05	4.71E+05	8.91E+04	4.13E+05	7.71E+04	3.59E+05	6.55E+04	3.06E+05	5.48E+04	2.57E+05
1.50	6.40E+04	2.96E+05	5.60E+04	2.60E+05	4.84E+04	2.25E+05	4.11E+04	1.92E+05	3.43E+04	1.61E+05
1.60	4.03E+04	1.87E+05	3.52E+04	1.63E+05	3.04E+04	1.41E+05	2.58E+04	1.20E+05	2.15E+04	1.00E+05
1.70	2.54E+04	1.17E+05	2.22E+04	1.03E+05	1.91E+04	8.88E+04	1.62E+04	7.54E+04	1.34E+04	6.29E+04
1.80	1.60E+04	7.40E+04	1.39E+04	6.47E+04	1.20E+04	5.58E+04	1.01E+04	4.73E+04	8.41E+03	3.94E+04
1.90	1.00E+04	4.65E+04	8.76E+03	4.07E+04	7.53E+03	3.50E+04	6.36E+03	2.97E+04	5.27E+03	2.46E+04
2.00	6.32E+03	2.93E+04	5.51E+03	2.56E+04	4.73E+03	2.20E+04	3.98E+03	1.86E+04	3.30E+03	1.54E+04
2.50	6.23E+02	2.89E+03	5.41E+02	2.51E+03	4.62E+02	2.15E+03	3.88E+02	1.81E+03	3.19E+02	1.49E+03
3.00	6.12E+01	2.84E+02	5.31E+01	2.47E+02	4.52E+01	2.10E+02	3.77E+01	1.76E+02	3.09E+01	1.44E+02
3.50	6.02E+00	2.79E+01	5.21E+00	2.42E+01	4.42E+00	2.05E+01	3.67E+00	1.71E+01	2.99E+00	1.40E+01
4.00	5.91E+01	2.74E+00	5.10E+01	2.37E+00	4.32E+01	2.01E+00	3.58E+01	1.67E+00	2.90E+01	1.35E+00
5.00	5.69E+03	2.64E+02	4.90E+03	2.28E+02	4.12E+03	1.92E+02	3.40E+03	1.58E+02	2.74E+03	1.28E+02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 2.00$ 

L.T. = E (MEV)	15.0			16.0			17.0			18.0			19.0		
	J(*E)	J(E)	J(*E)	J(*E)	J(F)	J(*E)	J(*E)	J(F)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(E)
.01	4.34E+07	5.54E+08	4.12E+07	4.12E+07	6.58E+08	3.95E+07	7.56E+08	3.77E+07	8.45E+08	3.67E+07	9.48E+08				
.02	3.92E+07	3.41E+08	3.64E+07	3.64E+07	3.75E+08	3.41E+07	4.06E+08	3.18E+07	4.31E+08	3.02E+07	4.61E+08				
.03	3.62E+07	2.66E+08	3.32E+07	3.32E+07	2.79E+08	3.07E+07	2.91E+08	2.82E+07	2.99E+08	2.65E+07	3.10E+08				
.04	3.38E+07	2.25E+08	3.07E+07	3.07E+07	2.29E+08	2.81E+07	2.32E+08	2.56E+07	2.33E+08	2.38E+07	2.37E+08				
.05	3.16E+07	1.98E+08	2.85E+07	2.85E+07	1.97E+08	2.60E+07	1.96E+08	2.35E+07	1.93E+08	2.16E+07	1.92E+08				
.10	2.37E+07	1.30E+08	2.09E+07	2.09E+07	1.21E+08	1.86E+07	1.14E+08	1.64E+07	1.06E+08	1.48E+07	1.00E+08				
.20	1.41E+07	7.12E+07	1.21E+07	1.21E+07	6.34E+07	1.06E+07	5.68E+07	9.13E+06	5.06E+07	8.03E+06	4.59E+07				
.30	8.56E+06	4.21E+07	7.29E+06	7.29E+06	3.66E+07	6.26E+06	3.21E+07	5.33E+06	2.80E+07	4.63E+06	2.48E+07				
.40	5.25E+06	2.55E+07	4.43E+06	4.43E+06	2.19E+07	3.77E+06	1.89E+07	3.18E+06	1.62E+07	2.73E+06	1.42E+07				
.50	3.24E+06	1.56E+07	2.71E+06	2.71E+06	1.32E+07	2.29E+06	1.13E+07	1.92E+06	9.62E+06	1.64E+06	8.31E+06				
.60	2.00E+06	9.59E+06	1.67E+06	1.67E+06	8.08E+06	1.40E+06	6.86E+06	1.17E+06	5.78E+06	9.90E+05	4.95E+06				
.70	1.24E+06	5.93E+06	1.03E+06	1.03E+06	4.96E+06	8.61E+05	4.18E+06	7.14E+05	3.50E+06	6.02E+05	2.98E+06				
.80	7.72E+05	3.67E+06	6.38E+05	6.38E+05	3.06E+06	5.31E+05	2.56E+06	4.38E+05	2.13E+06	3.67E+05	1.81E+06				
.90	4.81E+05	2.28E+06	3.95E+05	3.95E+05	1.89E+06	3.28E+05	1.58E+06	2.69E+05	1.31E+06	2.25E+05	1.10E+06				
1.00	2.99E+05	1.42E+06	2.45E+05	2.45E+05	1.17E+06	2.03E+05	9.72E+05	1.66E+05	8.01E+05	1.38E+05	6.72E+05				
1.10	1.86E+05	8.81E+05	1.52E+05	1.52E+05	7.24E+05	1.26E+05	6.00E+05	1.02E+05	4.93E+05	8.51E+04	4.12E+05				
1.20	1.16E+05	5.49E+05	9.48E+04	9.48E+04	4.50E+05	7.78E+04	3.71E+05	6.34E+04	3.04E+05	5.25E+04	2.53E+05				
1.30	7.26E+04	3.42E+05	5.90E+04	5.90E+04	2.79E+05	4.83E+04	2.30E+05	3.92E+04	1.88E+05	3.24E+04	1.56E+05				
1.40	4.53E+04	2.13E+05	3.67E+04	3.67E+04	1.74E+05	3.00E+04	1.43E+05	2.43E+04	1.16E+05	2.00E+04	9.62E+04				
1.50	2.83E+04	1.33E+05	2.29E+04	2.29E+04	1.08E+05	1.87E+04	8.86E+04	1.51E+04	7.20E+04	1.24E+04	5.94E+04				
1.60	1.77E+04	8.31E+04	1.43E+04	1.43E+04	6.74E+04	1.16E+04	5.51E+04	9.37E+03	4.46E+04	7.68E+03	3.67E+04				
1.70	1.10E+04	5.19E+04	8.90E+03	8.90E+03	4.20E+04	7.23E+03	3.43E+04	5.82E+03	2.77E+04	4.76E+03	2.27E+04				
1.80	6.91E+03	3.24E+04	5.56E+03	5.56E+03	2.62E+04	4.51E+03	2.13E+04	3.62E+03	1.72E+04	2.95E+03	1.41E+04				
1.90	4.32E+03	2.03E+04	3.47E+03	3.47E+03	1.63E+04	2.81E+03	1.33E+04	2.25E+03	1.07E+04	1.83E+03	8.74E+03				
2.00	2.70E+03	1.27E+04	2.17E+03	2.17E+03	1.02E+04	1.75E+03	8.27E+03	1.40E+03	6.64E+03	1.14E+03	5.42E+03				
2.50	2.59E+02	1.21E+03	2.06E+02	2.06E+02	9.69E+02	1.66E+02	7.80E+02	1.32E+02	6.21E+02	1.06E+02	5.03E+02				
3.00	2.50E+01	1.17E+02	1.98E+01	1.98E+01	9.26E+01	1.58E+01	7.41E+01	1.24E+01	5.86E+01	9.99E+00	4.72E+01				
3.50	2.41E+00	1.13E+01	1.90E+00	1.90E+00	8.79E+00	1.51E+00	7.07E+00	1.18E+00	5.57E+00	9.45E+00	4.45E+00				
4.00	2.33E-01	1.09E+00	1.83E-01	1.83E-01	8.55E-01	1.44E-01	6.77E-01	1.13E-01	5.30E-01	8.97E-02	4.22E-01				
5.00	2.19E-03	1.02E-02	1.70E-03	1.70E-03	7.95E-03	1.33E-03	6.25E-03	1.04E-03	4.86E-03	8.18E-04	3.84E-03				

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 2.00$ 

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.44E+07	1.03E+09	3.25E+07	1.06E+09	3.10E+07	1.12E+09	2.83E+07	1.12E+09	2.79E+07	1.21E+09
.02	2.77E+07	4.71E+08	2.55E+07	4.78E+08	2.38E+07	4.86E+08	2.12E+07	4.69E+08	2.04E+07	4.88E+08
.03	2.39E+07	3.08E+08	2.16E+07	3.05E+08	1.99E+07	3.03E+08	1.75E+07	2.86E+08	1.67E+07	2.92E+08
.04	2.13E+07	2.30E+08	1.92E+07	2.24E+08	1.74E+07	2.18E+08	1.51E+07	2.03E+08	1.42E+07	2.03E+08
.05	1.92E+07	1.84E+08	1.72E+07	1.76E+08	1.55E+07	1.70E+08	1.34E+07	1.56E+08	1.25E+07	1.54E+08
.10	1.24E+07	9.14E+07	1.12E+07	8.36E+07	9.85E+06	7.69E+07	8.31E+06	6.78E+07	7.57E+06	6.44E+07
.20	6.79E+06	4.00E+07	5.79E+06	3.51E+07	4.97E+06	3.10E+07	4.10E+06	2.62E+07	3.64E+06	2.40E+07
.30	3.86E+06	2.41E+07	3.24E+06	1.81E+07	2.74E+06	1.57E+07	2.23E+06	1.30E+07	1.96E+06	1.16E+07
.40	2.26E+06	1.19E+07	1.88E+06	1.01E+07	1.57E+06	8.57E+06	1.27E+06	7.01E+06	1.10E+06	6.18E+06
.50	1.34E+06	6.90E+06	1.11E+06	5.78E+06	9.21E+05	4.87E+06	7.37E+05	3.94E+06	6.34E+05	3.44E+06
.60	8.05E+05	4.08E+06	6.62E+05	3.39E+06	5.46E+05	2.83E+06	4.34E+05	2.27E+06	3.71E+05	1.97E+06
.70	4.87E+05	2.44E+06	3.98E+05	2.01E+06	3.27E+05	1.67E+06	2.58E+05	1.33E+06	2.20E+05	1.14E+06
.80	2.96E+05	1.47E+06	2.41E+05	1.20E+06	1.97E+05	9.93E+05	1.55E+05	7.88E+05	1.31E+05	6.73E+05
.90	1.81E+05	8.89E+05	1.46E+05	7.26E+05	1.19E+05	5.96E+05	9.33E+04	4.70E+05	7.87E+04	4.00E+05
1.00	1.10E+05	5.41E+05	8.92E+04	4.40E+05	7.23E+04	3.59E+05	5.65E+04	2.82E+05	4.75E+04	2.39E+05
1.10	6.78E+04	3.30E+05	5.45E+04	2.68E+05	4.41E+04	2.18E+05	3.43E+04	1.70E+05	2.87E+04	1.44E+05
1.20	4.17E+04	2.02E+05	3.34E+04	1.63E+05	2.69E+04	1.32E+05	2.09E+04	1.03E+05	1.75E+04	8.68E+04
1.30	2.57E+04	1.24E+05	2.05E+04	9.99E+04	1.55E+04	8.07E+04	1.28E+04	6.28E+04	1.06E+04	5.26E+04
1.40	1.58E+04	7.64E+04	1.26E+04	6.12E+04	1.01E+04	4.94E+04	7.81E+03	3.83E+04	6.49E+03	3.20E+04
1.50	9.77E+03	4.70E+04	7.78E+03	3.76E+04	6.22E+03	3.02E+04	4.79E+03	2.34E+04	3.97E+03	1.95E+04
1.60	6.04E+03	2.90E+04	4.80E+03	2.32E+04	3.83E+03	1.86E+04	2.94E+03	1.43E+04	2.43E+03	1.19E+04
1.70	3.74E+03	1.79E+04	2.96E+03	1.43E+04	2.36E+03	1.14E+04	1.81E+03	8.78E+03	1.49E+03	7.28E+03
1.80	2.31E+03	1.11E+04	1.83E+03	8.80E+03	1.45E+03	7.02E+03	1.11E+03	5.39E+03	9.16E+02	4.46E+03
1.90	1.43E+03	6.85E+03	1.13E+03	5.43E+03	8.98E+02	4.33E+03	6.86E+02	3.32E+03	5.64E+02	2.74E+03
2.00	8.89E+02	4.25E+03	7.01E+02	3.36E+03	5.55E+02	2.67E+03	4.23E+02	2.04E+03	3.47E+02	1.68E+03
2.50	8.22E+01	3.91E+02	6.43E+01	3.06E+02	5.05E+01	2.41E+02	3.83E+01	1.83E+02	3.11E+01	1.50E+02
3.00	7.68E+00	3.64E+01	5.97E+00	2.83E+01	4.66E+00	2.22E+01	3.51E+00	1.67E+01	2.84E+00	1.36E+01
3.50	7.23E+01	3.41E+00	5.59E+01	2.64E+00	4.34E+01	2.06E+00	3.25E+01	1.54E+00	2.61E+01	1.24E+00
4.00	6.83E+02	3.22E+01	5.26E+02	2.48E+01	4.07E+02	1.92E+01	3.03E+02	1.44E+01	2.42E+02	1.15E+01
5.00	6.18E+04	2.90E+03	4.72E+04	2.22E+03	3.62E+04	1.71E+03	2.68E+04	1.26E+03	2.12E+04	1.00E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0' = 2.50$ 

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	2.43E+07	1.05E+09	2.78E+07	1.01E+09	3.05E+07	9.05E+08	3.45E+07	7.92E+08	3.74E+07	5.92E+08
.02	1.78E+07	4.24E+08	2.13E+07	4.37E+08	2.45E+07	4.20E+08	2.90E+07	4.01E+08	3.30E+07	3.38E+08
.03	1.45E+07	2.54E+08	1.79E+07	2.72E+08	2.11E+07	2.74E+08	2.57E+07	2.77E+08	3.01E+07	2.52E+08
.04	1.24E+07	1.77E+08	1.56E+07	1.96E+08	1.88E+07	2.05E+08	2.13E+07	2.15E+08	2.78E+07	2.07E+08
.05	1.09E+07	1.34E+08	1.39E+07	1.52E+08	1.69E+07	1.63E+08	2.13E+07	1.77E+08	2.59E+07	1.79E+08
.10	6.59E+06	5.60E+07	8.62E+06	6.90E+07	1.13E+07	8.07E+07	1.49E+07	9.66E+07	1.90E+07	1.10E+08
.20	3.17E+06	2.08E+07	4.45E+06	2.77E+07	5.96E+06	3.52E+07	8.24E+06	4.59E+07	1.10E+07	5.75E+07
.30	1.70E+06	1.01E+07	2.46E+06	1.40E+07	3.38E+06	1.86E+07	4.81E+06	2.53E+07	6.63E+06	3.33E+07
.40	9.57E+05	5.37E+06	1.41E+06	7.67E+06	1.98E+06	1.04E+07	2.86E+06	1.40E+07	4.03E+06	1.99E+07
.50	5.52E+05	2.99E+06	8.24E+05	4.35E+06	1.17E+06	6.05E+06	1.73E+06	8.60E+06	2.47E+06	1.20E+07
.60	3.23E+05	1.71E+06	4.88E+05	2.53E+06	7.05E+05	3.57E+06	1.05E+06	5.20E+06	1.52E+06	7.35E+06
.70	1.91E+05	9.94E+05	2.92E+05	1.49E+06	4.26E+05	2.13E+06	6.41E+05	3.15E+06	9.38E+05	4.51E+06
.80	1.14E+05	5.85E+05	1.76E+05	8.88E+05	2.59E+05	1.28E+06	3.93E+05	1.92E+06	5.80E+05	2.78E+06
.90	6.85E+04	3.48E+05	1.06E+05	5.32E+05	1.58E+05	7.78E+05	2.41E+05	1.17E+06	3.60E+05	1.72E+06
1.00	4.13E+04	2.09E+05	6.46E+04	3.21E+05	9.65E+04	4.73E+05	1.49E+05	7.19E+05	2.23E+05	1.06E+06
1.10	2.50E+04	1.25E+05	3.94E+04	1.95E+05	5.92E+04	2.89E+05	9.18E+04	4.42E+05	1.39E+05	6.59E+05
1.20	1.52E+04	7.55E+04	2.41E+04	1.19E+05	3.64E+04	1.77E+05	5.67E+04	2.72E+05	8.63E+04	4.09E+05
1.30	9.25E+03	4.67E+04	1.47E+04	7.21E+04	2.24E+04	1.08E+05	3.51E+04	1.60E+05	5.37E+04	2.54E+05
1.40	5.64E+03	2.78E+04	9.04E+03	4.41E+04	1.38E+04	6.67E+04	2.18E+04	1.04E+05	3.34E+04	1.58E+05
1.50	3.45E+03	1.69E+04	5.56E+03	2.70E+04	8.52E+03	4.11E+04	1.35E+04	6.44E+04	2.08E+04	9.85E+04
1.60	2.11E+03	1.03E+04	3.42E+03	1.66E+04	5.27E+03	2.53E+04	8.37E+03	3.99E+04	1.30E+04	6.14E+04
1.70	1.30E+03	6.33E+03	2.11E+03	1.02E+04	3.26E+03	1.56E+04	5.20E+03	2.47E+04	8.11E+03	3.82E+04
1.80	7.97E+02	3.88E+03	1.30E+03	6.27E+03	2.02E+03	9.46E+03	3.23E+03	1.54E+04	5.06E+03	2.39E+04
1.90	4.90E+02	2.38E+03	8.02E+02	3.86E+03	1.25E+03	5.98E+03	2.01E+03	9.54E+03	3.16E+03	1.49E+04
2.00	3.02E+02	1.46E+03	4.96E+02	2.38E+03	7.75E+02	3.70E+03	1.25E+03	5.93E+03	1.97E+03	9.29E+03
2.50	2.71E+01	1.30E+02	4.51E+01	2.16E+02	7.16E+01	3.40E+02	1.17E+02	5.54E+02	1.88E+02	8.83E+02
3.00	2.47E+00	1.18E+01	4.16E+00	1.98E+01	6.69E+00	3.17E+01	1.11E+01	5.23E+01	1.80E+01	8.44E+01
3.50	2.27E-01	1.08E+00	3.87E-01	1.84E+00	6.29E-01	2.97E+00	1.05E+00	4.96E+00	1.73E+00	7.10E+00
4.00	2.11E-02	1.00E-01	3.63E-02	1.72E-01	5.95E-02	2.89E-01	1.00E-01	4.72E-01	1.66E-01	7.79E-01
5.00	1.85E-04	8.74E-04	3.23E-04	1.52E-03	5.37E-04	2.52E-03	9.21E-04	4.32E-03	1.55E-03	7.25E-03



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 2.50$ 

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(±E)	J(F)	J(±E)	J(F)	J(±E)	J(F)	J(±E)	J(F)	J(±E)	J(F)
.01	4.10E+07	4.12E+18	4.51E+07	2.41E+08	4.96E+07	1.56E+08	5.13E+07	2.99E+07	5.09E+07	4.84E+07
.02	3.77E+07	2.77E+08	4.28E+07	2.14E+08	4.79E+07	1.87E+08	5.00E+07	1.60E+08	4.98E+07	1.40E+08
.03	3.52E+07	2.27E+08	4.07E+07	1.99E+08	4.60E+07	1.91E+08	4.83E+07	1.78E+08	4.83E+07	1.65E+08
.04	3.31E+07	1.98E+08	3.88E+07	1.87E+08	4.41E+07	1.89E+08	4.65E+07	1.82E+08	4.66E+07	1.73E+08
.05	3.12E+07	1.79E+08	3.70E+07	1.77E+08	4.22E+07	1.84E+08	4.47E+07	1.82E+08	4.48E+07	1.75E+08
.10	2.38E+07	1.24E+08	2.92E+07	1.39E+08	3.38E+07	1.52E+08	3.61E+07	1.57E+08	3.64E+07	1.56E+08
.20	1.44E+07	7.09E+07	1.82E+07	8.54E+07	2.15E+07	9.82E+07	2.31E+07	1.04E+08	2.35E+07	1.05E+08
.30	8.85E+06	4.28E+07	1.14E+07	5.34E+07	1.36E+07	6.24E+07	1.47E+07	6.70E+07	1.50E+07	6.78E+07
.40	5.47E+06	2.62E+07	7.16E+06	3.34E+07	8.55E+06	3.95E+07	9.31E+06	4.26E+07	9.50E+06	4.33E+07
.50	3.40E+06	1.62E+07	4.49E+06	2.09E+07	5.39E+06	2.49E+07	5.89E+06	2.70E+07	6.02E+06	2.75E+07
.60	2.11E+06	1.00E+07	2.82E+06	1.31E+07	3.39E+06	1.57E+07	3.72E+06	1.71E+07	3.80E+06	1.75E+07
.70	1.32E+06	6.22E+06	1.77E+06	8.23E+06	2.14E+06	9.89E+06	2.34E+06	1.08E+07	2.40E+06	1.11E+07
.80	8.20E+05	3.87E+06	1.11E+06	5.16E+06	1.34E+06	6.23E+06	1.48E+06	6.82E+06	1.52E+06	6.98E+06
.90	5.12E+05	2.41E+06	6.96E+05	3.24E+06	8.46E+05	3.92E+06	9.32E+05	4.30E+06	9.57E+05	4.41E+06
1.00	3.20E+05	1.50E+06	4.37E+05	2.03E+06	5.32E+05	2.47E+06	5.87E+05	2.71E+06	6.03E+05	2.78E+06
1.10	2.00E+05	9.39E+05	2.74E+05	1.28E+06	3.35E+05	1.55E+06	3.70E+05	1.71E+06	3.80E+05	1.76E+06
1.20	1.25E+05	5.87E+05	1.72E+05	8.01E+05	2.11E+05	9.76E+05	2.33E+05	1.08E+06	2.40E+05	1.11E+06
1.30	7.81E+04	3.67E+05	1.08E+05	5.03E+05	1.32E+05	6.14E+05	1.47E+05	6.78E+05	1.51E+05	6.98E+05
1.40	4.89E+04	2.29E+05	6.78E+04	3.16E+05	8.32E+04	3.86E+05	9.22E+04	4.27E+05	9.50E+04	4.40E+05
1.50	3.06E+04	1.43E+05	4.25E+04	1.98E+05	5.23E+04	2.43E+05	5.80E+04	2.69E+05	5.98E+04	2.77E+05
1.60	1.91E+04	8.96E+04	2.68E+04	1.24E+05	3.29E+04	1.53E+05	3.65E+04	1.69E+05	3.77E+04	1.74E+05
1.70	1.20E+04	5.61E+04	1.68E+04	7.80E+04	2.07E+04	9.60E+04	2.30E+04	1.06E+05	2.37E+04	1.10E+05
1.80	7.50E+03	3.51E+04	1.05E+04	4.90E+04	1.30E+04	6.04E+04	1.45E+04	6.70E+04	1.49E+04	6.91E+04
1.90	4.70E+03	2.20E+04	6.61E+03	3.08E+04	8.17E+03	3.79E+04	9.09E+03	4.22E+04	9.39E+03	4.35E+04
2.00	2.94E+03	1.38E+04	4.15E+03	1.93E+04	5.14E+03	2.38E+04	5.72E+03	2.65E+04	5.91E+03	2.74E+04
2.50	2.84E+02	1.33E+03	4.05E+02	1.88E+03	5.04E+02	2.34E+03	5.63E+02	2.61E+03	5.82E+02	2.70E+03
3.00	2.75E+01	1.28E+02	3.95E+01	1.84E+02	4.93E+01	2.29E+02	5.53E+01	2.57E+02	5.73E+01	2.66E+02
3.50	2.66E+00	1.24E+01	3.86E+00	1.79E+01	4.83E+00	2.25E+01	5.43E+00	2.52E+01	5.63E+00	2.61E+01
4.00	2.58E-01	1.21E+00	3.77E-01	1.75E+00	4.73E-01	2.20E+00	5.32E-01	2.47E+00	5.53E-01	2.57E+00
5.00	2.44E-03	1.14E-02	3.59E-03	1.67E-02	4.54E-03	2.11E-02	5.12E-03	2.38E-02	5.33E-03	2.47E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 2.50$$

L.T. = E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	4.78E+07	5.50E+07	4.46E+07	1.09E+08	4.31E+07	2.00E+08	4.12E+07	2.91E+08	3.96E+07	3.90E+08
.02	4.68E+07	1.36E+08	4.33E+07	1.54E+08	4.11E+07	1.91E+08	3.87E+07	2.26E+08	3.64E+07	2.64E+08
.03	4.53E+07	1.58E+08	4.17E+07	1.63E+08	3.92E+07	1.83E+08	3.66E+07	1.99E+08	3.40E+07	2.17E+08
.04	4.36E+07	1.65E+08	4.00E+07	1.64E+08	3.75E+07	1.74E+08	3.47E+07	1.82E+08	3.20E+07	1.91E+08
.05	4.20E+07	1.66E+08	3.84E+07	1.62E+08	3.58E+07	1.66E+08	3.29E+07	1.69E+08	3.02E+07	1.72E+08
.10	3.41E+07	1.47E+08	3.09E+07	1.37E+08	2.83E+07	1.32E+08	2.57E+07	1.26E+08	2.31E+07	1.19E+08
.20	2.19E+07	9.82E+07	1.97E+07	8.95E+07	1.78E+07	8.28E+07	1.59E+07	7.56E+07	1.40E+07	6.87E+07
.30	1.40E+07	6.34E+07	1.25E+07	5.72E+07	1.12E+07	5.20E+07	9.86E+06	4.67E+07	8.60E+06	4.15E+07
.40	8.87E+06	4.05E+07	7.69E+06	3.63E+07	7.02E+06	3.27E+07	6.15E+06	2.90E+07	5.32E+06	2.55E+07
.50	5.61E+06	2.57E+07	4.98E+06	2.29E+07	4.41E+06	2.05E+07	3.84E+06	1.81E+07	3.31E+06	1.57E+07
.60	3.55E+06	1.63E+07	3.14E+06	1.45E+07	2.77E+06	1.29E+07	2.40E+06	1.13E+07	2.06E+06	9.74E+06
.70	2.24E+06	1.03E+07	1.98E+06	9.14E+06	1.74E+06	8.09E+06	1.50E+06	7.04E+06	1.28E+06	6.05E+06
.80	1.41E+06	6.51E+06	1.25E+06	5.77E+06	1.09E+06	5.08E+06	9.41E+05	4.41E+06	7.99E+05	3.77E+06
.90	8.91E+05	4.11E+06	7.85E+05	3.63E+06	6.86E+05	3.19E+06	5.89E+05	2.76E+06	4.99E+05	2.35E+06
1.00	5.62E+05	2.59E+06	4.94E+05	2.29E+06	4.31E+05	2.00E+06	3.69E+05	1.73E+06	3.12E+05	1.47E+06
1.10	3.54E+05	1.64E+06	3.11E+05	1.44E+06	2.71E+05	1.26E+06	2.31E+05	1.08E+06	1.95E+05	9.15E+05
1.20	2.23E+05	1.03E+06	1.96E+05	9.07E+05	1.70E+05	7.91E+05	1.45E+05	6.78E+05	1.22E+05	5.72E+05
1.30	1.41E+05	6.50E+05	1.23E+05	5.71E+05	1.07E+05	4.97E+05	9.09E+04	4.25E+05	7.61E+04	3.57E+05
1.40	8.85E+04	4.09E+05	7.75E+04	3.59E+05	6.71E+04	3.12E+05	5.70E+04	2.66E+05	4.76E+04	2.23E+05
1.50	5.57E+04	2.58E+05	4.67E+04	2.25E+05	4.21E+04	1.96E+05	3.57E+04	1.67E+05	2.98E+04	1.40E+05
1.60	3.51E+04	1.62E+05	3.07E+04	1.42E+05	2.64E+04	1.23E+05	2.24E+04	1.05E+05	1.87E+04	8.74E+04
1.70	2.21E+04	1.02E+05	1.93E+04	8.94E+04	1.66E+04	7.73E+04	1.41E+04	6.56E+04	1.17E+04	5.47E+04
1.80	1.39E+04	6.43E+04	1.21E+04	5.62E+04	1.04E+04	4.85E+04	8.82E+03	4.11E+04	7.32E+03	3.42E+04
1.90	8.74E+03	4.85E+04	7.62E+03	3.54E+04	6.55E+03	3.05E+04	5.53E+03	2.58E+04	4.58E+03	2.14E+04
2.00	5.50E+03	2.55E+04	4.79E+03	2.22E+04	4.12E+03	1.91E+04	3.47E+03	1.62E+04	2.87E+03	1.34E+04
2.50	5.42E+02	2.51E+03	4.71E+02	2.19E+03	4.02E+02	1.87E+03	3.37E+02	1.57E+03	2.77E+02	1.30E+03
3.00	5.33E+01	2.47E+02	4.63E+01	2.10E+02	3.93E+01	1.83E+02	3.28E+01	1.53E+02	2.68E+01	1.25E+02
3.50	5.23E+00	2.43E+01	4.53E+00	2.10E+01	3.84E+00	1.79E+01	3.19E+00	1.49E+01	2.60E+00	1.21E+01
4.00	5.14E+01	2.39E+00	4.44E+01	2.06E+00	3.75E+01	1.75E+00	3.11E+01	1.45E+00	2.53E+01	1.18E+00
5.00	4.95E+03	2.30E+02	4.26E+03	1.94E+02	3.59E+03	1.67E+02	2.96E+03	1.38E+02	2.38E+03	1.11E+02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 2.50$$

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.78E+07	4.82E+08	3.59E+07	5.72E+08	3.43E+07	6.58E+08	3.28E+07	7.35E+08	3.19E+07	8.25E+08
.02	3.41E+07	2.97E+08	3.17E+07	3.26E+08	2.97E+07	3.53E+08	2.76E+07	3.74E+08	2.63E+07	4.01E+08
.03	3.15E+07	2.31E+08	2.89E+07	2.43E+08	2.67E+07	2.53E+08	2.45E+07	2.60E+08	2.30E+07	2.70E+08
.04	2.94E+07	1.96E+08	2.67E+07	1.99E+08	2.44E+07	2.02E+08	2.23E+07	2.03E+08	2.07E+07	2.06E+08
.05	2.75E+07	1.73E+08	2.48E+07	1.72E+08	2.26E+07	1.71E+08	2.04E+07	1.68E+08	1.88E+07	1.67E+08
.10	2.06E+07	1.13E+08	1.82E+07	1.05E+08	1.62E+07	9.87E+07	1.43E+07	9.20E+07	1.29E+07	8.72E+07
.20	1.22E+07	6.19E+07	1.06E+07	5.51E+07	9.19E+06	4.94E+07	7.94E+06	4.40E+07	6.99E+06	3.99E+07
.30	7.44E+06	3.66E+07	6.34E+06	3.19E+07	5.44E+06	2.80E+07	4.64E+06	2.43E+07	4.03E+06	2.16E+07
.40	4.57E+06	2.22E+07	3.85E+06	1.90E+07	3.28E+06	1.44E+07	2.77E+06	1.41E+07	2.38E+06	1.23E+07
.50	2.82E+06	1.36E+07	2.36E+06	1.15E+07	1.99E+06	9.85E+06	1.67E+06	8.37E+06	1.42E+06	7.23E+06
.60	1.74E+06	8.34E+06	1.45E+06	7.03E+06	1.22E+06	5.97E+06	1.02E+06	5.03E+06	8.61E+05	4.31E+06
.70	1.08E+06	5.15E+06	8.96E+05	4.31E+06	7.49E+05	3.64E+06	6.21E+05	3.05E+06	5.23E+05	2.59E+06
.80	6.72E+05	3.19E+06	5.55E+05	2.66E+06	4.62E+05	2.23E+06	3.81E+05	1.86E+06	3.20E+05	1.57E+06
.90	4.18E+05	1.98E+06	3.44E+05	1.64E+06	2.85E+05	1.37E+06	2.34E+05	1.14E+06	1.96E+05	9.57E+05
1.00	2.60E+05	1.23E+06	2.13E+05	1.02E+06	1.76E+05	8.45E+05	1.44E+05	6.97E+05	1.20E+05	5.85E+05
1.10	1.62E+05	7.66E+05	1.33E+05	6.30E+05	1.09E+05	5.22E+05	8.91E+04	4.29E+05	7.40E+04	3.58E+05
1.20	1.01E+05	4.77E+05	8.24E+04	3.91E+05	6.77E+04	3.23E+05	5.51E+04	2.65E+05	4.56E+04	2.20E+05
1.30	6.31E+04	2.98E+05	5.13E+04	2.43E+05	4.20E+04	2.00E+05	3.41E+04	1.63E+05	2.82E+04	1.36E+05
1.40	3.94E+04	1.86E+05	3.20E+04	1.51E+05	2.61E+04	1.24E+05	2.12E+04	1.01E+05	1.74E+04	8.37E+04
1.50	2.46E+04	1.16E+05	1.99E+04	9.41E+04	1.62E+04	7.71E+04	1.31E+04	6.26E+04	1.08E+04	5.17E+04
1.60	1.54E+04	7.23E+04	1.24E+04	5.86E+04	1.01E+04	4.79E+04	8.15E+03	3.88E+04	6.68E+03	3.20E+04
1.70	9.61E+03	4.52E+04	7.74E+03	3.65E+04	6.29E+03	2.98E+04	5.06E+03	2.41E+04	4.14E+03	1.98E+04
1.80	6.01E+03	2.82E+04	4.83E+03	2.28E+04	3.92E+03	1.85E+04	3.15E+03	1.50E+04	2.57E+03	1.23E+04
1.90	3.76E+03	1.76E+04	3.02E+03	1.42E+04	2.44E+03	1.15E+04	1.96E+03	9.29E+03	1.60E+03	7.60E+03
2.00	2.35E+03	1.10E+04	1.88E+03	8.87E+03	1.52E+03	7.19E+03	1.22E+03	5.78E+03	9.91E+02	4.72E+03
2.50	2.26E+02	1.06E+03	1.80E+02	8.43E+02	1.44E+02	6.78E+02	1.14E+02	5.41E+02	9.24E+01	4.38E+02
3.00	2.17E+01	1.02E+02	1.72E+01	8.05E+01	1.37E+01	6.44E+01	1.08E+01	5.10E+01	8.69E+00	4.10E+01
3.50	2.10E+00	9.80E+00	1.65E+00	7.73E+00	1.31E+00	6.15E+00	1.03E+00	4.84E+00	8.22E+01	3.87E+00
4.00	2.03E-01	9.47E-01	1.59E-01	7.43E-01	1.26E-01	5.89E-01	9.83E-02	4.61E-01	7.81E-02	3.67E-01
5.00	1.90E-03	8.87E-03	1.48E-03	6.92E-03	1.16E-03	5.43E-03	9.02E-04	4.23E-03	7.11E-04	3.34E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 2.50$$

L.T. $\pi$ E (MeV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.00E+07	8.79E+08	2.63E+07	9.26E+08	2.64E+07	9.77E+08	2.46E+07	9.76E+08	2.43E+07	1.05E+09
.02	2.41E+07	4.10E+08	2.22E+07	4.15E+08	2.07E+07	4.23E+08	1.84E+07	4.08E+08	1.78E+07	4.24E+08
.03	2.08E+07	2.68E+08	1.89E+07	2.65E+08	1.74E+07	2.63E+08	1.53E+07	2.49E+08	1.45E+07	2.54E+08
.04	1.85E+07	2.00E+08	1.67E+07	1.95E+08	1.51E+07	1.90E+08	1.32E+07	1.77E+08	1.24E+07	1.77E+08
.05	1.67E+07	1.60E+08	1.49E+07	1.53E+08	1.35E+07	1.48E+08	1.16E+07	1.36E+08	1.09E+07	1.34E+08
.10	1.12E+07	7.95E+07	9.74E+06	7.27E+07	8.57E+06	6.69E+07	7.23E+06	5.90E+07	6.59E+06	5.60E+07
.20	5.91E+06	3.48E+07	5.04E+06	3.05E+07	4.32E+06	2.69E+07	3.56E+06	2.28E+07	3.17E+06	2.08E+07
.30	3.36E+06	1.84E+07	2.62E+06	1.58E+07	2.39E+06	1.36E+07	1.94E+06	1.13E+07	1.70E+06	1.01E+07
.40	1.96E+06	1.03E+07	1.63E+06	8.75E+06	1.37E+06	7.45E+06	1.10E+06	6.10E+06	9.57E+05	5.37E+06
.50	1.17E+06	6.00E+06	9.64E+05	5.03E+06	8.01E+05	4.23E+06	6.41E+05	3.43E+06	5.52E+05	2.99E+06
.60	7.01E+05	3.55E+06	5.75E+05	2.95E+06	4.75E+05	2.46E+06	3.78E+05	1.98E+06	3.23E+05	1.71E+06
.70	4.24E+05	2.12E+06	3.46E+05	1.75E+06	2.84E+05	1.45E+06	2.25E+05	1.16E+06	1.91E+05	9.94E+05
.80	2.57E+05	1.28E+06	2.09E+05	1.05E+06	1.71E+05	8.64E+05	1.35E+05	6.85E+05	1.14E+05	5.85E+05
.90	1.57E+05	7.74E+05	1.27E+05	6.31E+05	1.04E+05	5.18E+05	8.12E+04	4.09E+05	6.85E+04	3.48E+05
1.00	9.61E+04	4.71E+05	7.76E+04	3.83E+05	6.29E+04	3.13E+05	4.91E+04	2.46E+05	4.13E+04	2.08E+05
1.10	5.90E+04	2.87E+05	4.74E+04	2.33E+05	3.83E+04	1.89E+05	2.98E+04	1.48E+05	2.50E+04	1.25E+05
1.20	3.62E+04	1.76E+05	2.91E+04	1.42E+05	2.34E+04	1.15E+05	1.82E+04	8.99E+04	1.52E+04	7.55E+04
1.30	2.23E+04	1.08E+05	1.79E+04	8.69E+04	1.43E+04	7.02E+04	1.11E+04	5.46E+04	9.25E+03	4.57E+04
1.40	1.38E+04	6.64E+04	1.10E+04	5.33E+04	8.60E+03	4.29E+04	6.79E+03	3.33E+04	5.64E+03	2.78E+04
1.50	8.50E+03	4.09E+04	6.76E+03	3.27E+04	5.41E+03	2.63E+04	4.17E+03	2.03E+04	3.45E+03	1.69E+04
1.60	5.25E+03	2.52E+04	4.17E+03	2.01E+04	3.33E+03	1.61E+04	2.56E+03	1.25E+04	2.11E+03	1.03E+04
1.70	3.25E+03	1.56E+04	2.58E+03	1.24E+04	2.05E+03	9.92E+03	1.57E+03	7.64E+03	1.30E+03	6.33E+03
1.80	2.01E+03	9.64E+03	1.59E+03	7.65E+03	1.27E+03	6.11E+03	9.68E+02	4.69E+03	7.97E+02	3.88E+03
1.90	1.25E+03	5.96E+03	9.85E+02	4.73E+03	7.81E+02	3.76E+03	5.97E+02	2.89E+03	4.90E+02	2.38E+03
2.00	7.73E+02	3.69E+03	6.10E+02	2.92E+03	4.83E+02	2.32E+03	3.68E+02	1.78E+03	3.02E+02	1.46E+03
2.50	7.15E+01	3.40E+02	5.60E+01	2.67E+02	4.40E+01	2.10E+02	3.33E+01	1.59E+02	2.71E+01	1.30E+02
3.00	6.68E+00	3.16E+01	5.20E+00	2.47E+01	4.06E+00	1.93E+01	3.05E+00	1.45E+01	2.47E+00	1.18E+01
3.50	6.29E-01	2.97E+00	4.86E-01	2.30E+00	3.77E-01	1.79E+00	2.82E-01	1.34E+00	2.27E-01	1.08E+00
4.00	5.94E-02	2.80E-01	4.58E-02	2.10E-01	3.54E-02	1.67E-01	2.63E-02	1.25E-01	2.11E-02	1.00E-01
5.00	5.37E-04	2.53E-03	4.11E-04	1.93E-03	3.15E-04	1.48E-03	2.33E-04	1.10E-03	1.85E-04	8.74E-04

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 3.00$ 

L.T. = E(MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	2.17E+07	9.36E+08	2.48E+07	9.02E+08	2.72E+07	8.07E+08	3.08E+07	7.07E+08	3.33E+07	5.29E+08
.02	1.58E+07	3.79E+08	1.90E+07	3.90E+08	2.19E+07	3.75E+08	2.59E+07	3.57E+08	2.95E+07	3.02E+08
.03	1.29E+07	2.26E+08	1.60E+07	2.43E+08	1.88E+07	2.45E+08	2.30E+07	2.47E+08	2.69E+07	2.25E+08
.04	1.11E+07	1.58E+08	1.39E+07	1.75E+08	1.67E+07	1.83E+08	2.08E+07	1.92E+08	2.48E+07	1.85E+08
.05	9.69E+06	1.20E+08	1.24E+07	1.36E+08	1.51E+07	1.46E+08	1.90E+07	1.58E+08	2.31E+07	1.59E+08
.10	5.88E+06	5.00E+07	7.87E+06	6.16E+07	1.01E+07	7.20E+07	1.33E+07	8.62E+07	1.70E+07	9.78E+07
.20	2.83E+06	1.86E+07	3.97E+06	2.47E+07	5.32E+06	3.14E+07	7.36E+06	4.09E+07	9.85E+06	5.13E+07
.30	1.52E+06	9.01E+06	2.19E+06	1.25E+07	3.02E+06	1.66E+07	4.29E+06	2.26E+07	5.91E+06	2.97E+07
.40	8.54E+05	4.79E+06	1.26E+06	6.84E+06	1.76E+06	9.31E+06	2.56E+06	1.31E+07	3.60E+06	1.77E+07
.50	4.92E+05	2.67E+06	7.35E+05	3.89E+06	1.05E+06	5.40E+06	1.54E+06	7.73E+06	2.20E+06	1.07E+07
.60	2.88E+05	1.53E+06	4.36E+05	2.26E+06	6.29E+05	3.19E+06	9.36E+05	4.64E+06	1.36E+06	6.56E+06
.70	1.71E+05	8.87E+05	2.61E+05	1.33E+06	3.80E+05	1.90E+06	5.72E+05	2.81E+06	8.37E+05	4.03E+06
.80	1.02E+05	5.22E+05	1.57E+05	7.92E+05	2.31E+05	1.15E+06	3.50E+05	1.71E+06	5.18E+05	2.48E+06
.90	6.11E+04	3.10E+05	9.50E+04	4.75E+05	1.41E+05	6.94E+05	2.15E+05	1.05E+06	3.21E+05	1.53E+06
1.00	3.68E+04	1.86E+05	5.77E+04	2.87E+05	8.61E+04	4.22E+05	1.33E+05	6.41E+05	1.99E+05	9.49E+05
1.10	2.23E+04	1.12E+05	3.51E+04	1.74E+05	5.28E+04	2.58E+05	8.19E+04	3.94E+05	1.24E+05	5.88E+05
1.20	1.35E+04	6.73E+04	2.15E+04	1.06E+05	3.25E+04	1.58E+05	5.06E+04	2.43E+05	7.70E+04	3.65E+05
1.30	8.25E+03	4.08E+04	1.31E+04	6.44E+04	2.00E+04	9.68E+04	3.13E+04	1.50E+05	4.79E+04	2.27E+05
1.40	5.04E+03	2.48E+04	8.07E+03	3.93E+04	1.23E+04	5.95E+04	1.94E+04	9.28E+04	2.98E+04	1.41E+05
1.50	3.08E+03	1.51E+04	4.96E+03	2.41E+04	7.61E+03	3.66E+04	1.20E+04	5.75E+04	1.86E+04	8.79E+04
1.60	1.89E+03	9.23E+03	3.05E+03	1.48E+04	4.70E+03	2.26E+04	7.47E+03	3.56E+04	1.16E+04	5.48E+04
1.70	1.16E+03	5.65E+03	1.88E+03	9.09E+03	2.91E+03	1.40E+04	4.64E+03	2.21E+04	7.24E+03	3.41E+04
1.80	7.11E+02	3.46E+03	1.16E+03	5.60E+03	1.80E+03	8.62E+03	2.88E+03	1.37E+04	4.52E+03	2.13E+04
1.90	4.38E+02	2.12E+03	7.16E+02	3.45E+03	1.12E+03	5.34E+03	1.79E+03	8.52E+03	2.82E+03	1.33E+04
2.00	2.69E+02	1.30E+03	4.42E+02	2.13E+03	6.92E+02	3.30E+03	1.12E+03	5.29E+03	1.76E+03	8.29E+03
2.50	2.42E+01	1.16E+02	4.03E+01	1.92E+02	3.39E+01	3.04E+02	1.05E+02	4.95E+02	1.68E+02	7.88E+02
3.00	2.20E+00	1.05E+01	3.71E+00	1.77E+01	5.97E+00	2.83E+01	9.90E+00	4.66E+01	1.61E+01	7.53E+01
3.50	2.03E-01	9.65E-01	3.46E-01	1.64E+00	5.61E-01	2.65E+00	9.40E-01	4.42E+00	1.54E+00	7.23E+00
4.00	1.88E-02	8.93E-02	3.24E-02	1.53E-01	5.31E-02	2.50E-01	8.97E-02	4.21E-01	1.49E-01	6.95E-01
5.00	1.65E-04	7.80E-04	2.88E-04	1.36E-03	4.79E-04	2.25E-03	8.22E-04	3.85E-03	1.38E-03	6.47E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 3.00$ 

L.T. *	5.0		6.0		7.0		8.0		9.0	
	J(*)	J(F)	J(*)	J(E)	J(*)	J(F)	J(*)	J(E)	J(*)	J(E)
.01	3.66E+07	3.68E+08	4.02E+07	2.15E+08	4.43E+07	1.40E+06	4.58E+07	8.02E+07	4.54E+07	4.33E+07
.02	3.36E+07	2.47E+08	3.82E+07	1.91E+08	4.27E+07	1.67E+08	4.46E+07	1.43E+08	4.44E+07	1.24E+08
.03	3.14E+07	2.03E+08	3.64E+07	1.78E+08	4.10E+07	1.70E+08	4.31E+07	1.59E+08	4.31E+07	1.47E+08
.04	2.95E+07	1.77E+08	3.46E+07	1.67E+08	3.93E+07	1.68E+08	4.15E+07	1.63E+08	4.15E+07	1.55E+08
.05	2.78E+07	1.60E+08	3.30E+07	1.58E+08	3.77E+07	1.64E+08	3.98E+07	1.62E+08	4.00E+07	1.56E+08
.10	2.12E+07	1.10E+08	2.60E+07	1.23E+08	3.02E+07	1.36E+08	3.22E+07	1.40E+08	3.25E+07	1.39E+08
.20	1.29E+07	6.33E+07	1.63E+07	7.62E+07	1.91E+07	8.76E+07	2.06E+07	9.30E+07	2.09E+07	9.36E+07
.30	7.90E+06	3.82E+07	1.02E+07	4.76E+07	1.21E+07	5.57E+07	1.31E+07	5.98E+07	1.34E+07	6.05E+07
.40	4.88E+06	2.34E+07	6.39E+06	2.98E+07	7.63E+06	3.52E+07	8.31E+06	3.80E+07	8.48E+06	3.86E+07
.50	3.03E+06	1.44E+07	4.01E+06	1.87E+07	4.31E+06	2.22E+07	5.25E+06	2.41E+07	5.37E+06	2.46E+07
.60	1.88E+06	8.94E+06	2.51E+06	1.17E+07	3.03E+06	1.40E+07	3.32E+06	1.53E+07	3.39E+06	1.56E+07
.70	1.17E+06	5.55E+06	1.58E+06	7.35E+06	1.91E+06	8.83E+06	2.09E+06	9.64E+06	2.14E+06	9.86E+06
.80	7.32E+05	3.45E+06	9.89E+05	4.61E+06	1.20E+06	5.56E+06	1.32E+06	6.09E+06	1.35E+06	6.23E+06
.90	4.57E+05	2.15E+06	6.21E+05	2.89E+06	7.55E+05	3.50E+06	8.31E+05	3.84E+06	8.54E+05	3.94E+06
1.00	2.85E+05	1.34E+06	3.90E+05	1.81E+06	4.75E+05	2.20E+06	5.24E+05	2.42E+06	5.38E+05	2.48E+06
1.10	1.78E+05	8.38E+05	2.44E+05	1.14E+06	2.99E+05	1.39E+06	3.30E+05	1.53E+06	3.39E+05	1.57E+06
1.20	1.11E+05	5.23E+05	1.53E+05	7.15E+05	1.88E+05	8.71E+05	2.08E+05	9.61E+05	2.14E+05	9.88E+05
1.30	6.97E+04	3.27E+05	9.63E+04	4.49E+05	1.18E+05	5.48E+05	1.31E+05	6.05E+05	1.35E+05	6.23E+05
1.40	4.36E+04	2.04E+05	6.05E+04	2.82E+05	7.43E+04	3.45E+05	8.23E+04	3.81E+05	8.48E+04	3.92E+05
1.50	2.73E+04	1.26E+05	3.80E+04	1.77E+05	4.67E+04	2.17E+05	5.18E+04	2.40E+05	5.34E+04	2.47E+05
1.60	1.71E+04	8.00E+04	2.38E+04	1.11E+05	2.94E+04	1.36E+05	3.26E+04	1.51E+05	3.36E+04	1.56E+05
1.70	1.07E+04	5.01E+04	1.50E+04	6.96E+04	1.85E+04	8.57E+04	2.05E+04	9.50E+04	2.12E+04	9.80E+04
1.80	6.69E+03	3.13E+04	9.39E+03	4.37E+04	1.16E+04	5.39E+04	1.29E+04	5.98E+04	1.33E+04	6.17E+04
1.90	4.19E+03	1.96E+04	5.90E+03	2.74E+04	7.29E+03	3.39E+04	8.11E+03	3.76E+04	8.38E+03	3.88E+04
2.00	2.62E+03	1.23E+04	3.70E+03	1.72E+04	4.58E+03	2.13E+04	5.10E+03	2.37E+04	5.27E+03	2.44E+04
2.50	2.53E+02	1.18E+03	3.61E+02	1.68E+03	4.49E+02	2.09E+03	5.02E+02	2.33E+03	5.20E+02	2.41E+03
3.00	2.45E+01	1.15E+02	3.53E+01	1.64E+02	4.40E+01	2.05E+02	4.93E+01	2.29E+02	5.11E+01	2.37E+02
3.50	2.38E+00	1.11E+01	3.44E+00	1.60E+01	4.31E+00	2.00E+01	4.84E+00	2.25E+01	5.03E+00	2.33E+01
4.00	2.31E-01	1.08E+00	3.36E-01	1.56E+00	4.22E-01	1.96E+00	4.75E-01	2.21E+00	4.94E-01	2.29E+00
5.00	2.18E-03	1.01E-02	3.20E-03	1.49E-02	4.05E-03	1.88E-02	4.57E-03	2.12E-02	4.75E-03	2.21E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 3.00

L.T. = E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	4.27E+07	4.91E+07	3.98E+07	9.76E+07	3.84E+07	1.79E+08	3.68E+07	2.59E+08	3.53E+07	3.48E+08
.02	4.17E+07	1.21E+08	3.86E+07	1.37E+08	3.67E+07	1.71E+08	3.45E+07	2.02E+08	3.25E+07	2.36E+08
.03	4.04E+07	1.41E+08	3.72E+07	1.46E+08	3.50E+07	1.63E+08	3.26E+07	1.78E+08	3.04E+07	1.94E+08
.04	3.89E+07	1.47E+08	3.57E+07	1.46E+08	3.34E+07	1.55E+08	3.09E+07	1.63E+08	2.86E+07	1.70E+08
.05	3.75E+07	1.48E+08	3.43E+07	1.44E+08	3.19E+07	1.48E+08	2.94E+07	1.51E+08	2.70E+07	1.53E+08
.10	3.04E+07	1.31E+08	2.76E+07	1.22E+08	2.53E+07	1.18E+08	2.29E+07	1.12E+08	2.06E+07	1.07E+08
.20	1.96E+07	8.76E+07	1.76E+07	7.98E+07	1.59E+07	7.39E+07	1.41E+07	6.75E+07	1.25E+07	6.13E+07
.30	1.25E+07	5.65E+07	1.11E+07	5.10E+07	9.97E+06	4.64E+07	8.80E+06	4.16E+07	7.68E+06	3.70E+07
.40	7.91E+06	3.61E+07	7.04E+06	3.24E+07	6.26E+06	2.91E+07	5.49E+06	2.59E+07	4.75E+06	2.27E+07
.50	5.01E+06	2.29E+07	4.44E+06	2.05E+07	3.93E+06	1.83E+07	3.43E+06	1.61E+07	2.95E+06	1.40E+07
.60	3.17E+06	1.45E+07	2.80E+06	1.29E+07	2.47E+06	1.15E+07	2.14E+06	1.01E+07	1.83E+06	8.69E+06
.70	2.00E+06	9.20E+06	1.77E+06	8.16E+06	1.55E+06	7.22E+06	1.34E+06	6.29E+06	1.14E+06	5.40E+06
.80	1.26E+06	5.81E+06	1.11E+06	5.14E+06	9.75E+05	4.53E+06	8.40E+05	3.93E+06	7.13E+05	3.36E+06
.90	7.95E+05	3.67E+06	7.01E+05	3.24E+06	6.12E+05	2.85E+06	5.26E+05	2.46E+06	4.45E+05	2.10E+06
1.00	5.01E+05	2.31E+06	4.41E+05	2.04E+06	3.85E+05	1.79E+06	3.30E+05	1.54E+06	2.78E+05	1.31E+06
1.10	3.16E+05	1.46E+06	2.78E+05	1.29E+06	2.42E+05	1.12E+06	2.06E+05	9.65E+05	1.74E+05	8.16E+05
1.20	1.99E+05	9.20E+05	1.75E+05	8.09E+05	1.52E+05	7.05E+05	1.29E+05	6.05E+05	1.09E+05	5.10E+05
1.30	1.25E+05	5.80E+05	1.10E+05	5.09E+05	9.53E+04	4.43E+05	8.11E+04	3.79E+05	6.79E+04	3.19E+05
1.40	7.89E+04	3.65E+05	6.91E+04	3.20E+05	5.98E+04	2.78E+05	5.09E+04	2.37E+05	4.25E+04	1.99E+05
1.50	4.97E+04	2.30E+05	4.35E+04	2.02E+05	3.76E+04	1.75E+05	3.19E+04	1.49E+05	2.66E+04	1.25E+05
1.60	3.13E+04	1.45E+05	2.74E+04	1.27E+05	2.36E+04	1.10E+05	2.00E+04	9.33E+04	1.67E+04	7.80E+04
1.70	1.97E+04	9.12E+04	1.72E+04	7.98E+04	1.48E+04	6.89E+04	1.25E+04	5.85E+04	1.04E+04	4.88E+04
1.80	1.24E+04	5.74E+04	1.08E+04	5.02E+04	9.31E+03	4.33E+04	7.87E+03	3.67E+04	6.53E+03	3.06E+04
1.90	7.80E+03	3.61E+04	6.80E+03	3.16E+04	5.85E+03	2.72E+04	4.93E+03	2.30E+04	4.09E+03	1.91E+04
2.00	4.91E+03	2.27E+04	4.28E+03	1.98E+04	3.67E+03	1.71E+04	3.10E+03	1.44E+04	2.56E+03	1.20E+04
2.50	4.83E+02	2.24E+03	4.20E+02	1.95E+03	3.59E+02	1.67E+03	3.01E+02	1.40E+03	2.47E+02	1.16E+03
3.00	4.75E+01	2.21E+02	4.12E+01	1.91E+02	3.51E+01	1.63E+02	2.93E+01	1.36E+02	2.39E+01	1.12E+02
3.50	4.67E+00	2.17E+01	4.04E+00	1.88E+01	3.43E+00	1.59E+01	2.85E+00	1.33E+01	2.32E+00	1.08E+01
4.00	4.59E+01	2.13E+00	3.96E+01	1.84E+00	3.35E+01	1.56E+00	2.78E+01	1.29E+00	2.25E+01	1.05E+00
5.00	4.41E+03	2.05E+02	3.80E+03	1.77E+02	3.20E+03	1.49E+02	2.64E+03	1.23E+02	2.13E+03	9.92E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 3.00$ 

L.T. = E(MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.37E+07	4.30E+08	3.20E+07	5.11E+08	3.06E+07	5.87E+08	2.92E+07	6.56E+08	2.85E+07	7.36E+08
.02	3.04E+07	2.65E+08	2.83E+07	2.91E+08	2.65E+07	3.15E+08	2.47E+07	3.34E+08	2.35E+07	3.58E+08
.03	2.81E+07	2.07E+08	2.58E+07	2.17E+08	2.38E+07	2.26E+08	2.19E+07	2.32E+08	2.05E+07	2.41E+08
.04	2.62E+07	1.75E+08	2.38E+07	1.78E+08	2.18E+07	1.80E+08	1.99E+07	1.81E+08	1.85E+07	1.84E+08
.05	2.46E+07	1.54E+08	2.22E+07	1.53E+08	2.01E+07	1.52E+08	1.82E+07	1.50E+08	1.68E+07	1.49E+08
.10	1.84E+07	1.01E+08	1.62E+07	9.39E+07	1.44E+07	8.81E+07	1.28E+07	8.21E+07	1.15E+07	7.78E+07
.20	1.09E+07	5.53E+07	9.43E+06	4.92E+07	8.20E+06	4.41E+07	7.09E+06	3.93E+07	4.23E+06	3.56E+07
.30	6.64E+06	3.27E+07	5.66E+06	2.84E+07	4.86E+06	2.49E+07	4.14E+06	2.17E+07	3.59E+06	1.92E+07
.40	4.08E+06	1.98E+07	3.44E+06	1.70E+07	2.93E+06	1.47E+07	2.47E+06	1.26E+07	2.12E+06	1.10E+07
.50	2.51E+06	1.21E+07	2.11E+06	1.03E+07	1.78E+06	8.79E+06	1.49E+06	7.47E+06	1.27E+06	6.45E+06
.60	1.56E+06	7.45E+06	1.30E+06	6.27E+06	1.09E+06	5.33E+06	9.07E+05	4.49E+06	7.68E+05	3.85E+06
.70	9.65E+05	4.60E+06	8.00E+05	3.85E+06	6.68E+05	3.25E+06	5.54E+05	2.72E+06	4.67E+05	2.31E+06
.80	6.00E+05	2.85E+06	4.95E+05	2.37E+06	4.12E+05	1.99E+06	3.40E+05	1.66E+06	2.85E+05	1.40E+06
.90	3.73E+05	1.77E+06	3.07E+05	1.46E+06	2.54E+05	1.22E+06	2.09E+05	1.01E+06	1.75E+05	8.54E+05
1.00	2.32E+05	1.10E+06	1.90E+05	9.07E+05	1.57E+05	7.54E+05	1.29E+05	6.22E+05	1.07E+05	5.22E+05
1.10	1.45E+05	6.84E+05	1.18E+05	5.62E+05	9.74E+04	4.66E+05	7.95E+04	3.83E+05	6.60E+04	3.20E+05
1.20	9.03E+04	4.26E+05	7.35E+04	3.49E+05	6.04E+04	2.88E+05	4.92E+04	2.36E+05	4.07E+04	1.97E+05
1.30	5.63E+04	2.66E+05	4.58E+04	2.17E+05	3.75E+04	1.79E+05	3.05E+04	1.46E+05	2.51E+04	1.21E+05
1.40	3.52E+04	1.66E+05	2.65E+04	1.35E+05	2.33E+04	1.11E+05	1.89E+04	9.02E+04	1.55E+04	7.46E+04
1.50	2.20E+04	1.03E+05	1.78E+04	8.40E+04	1.45E+04	6.88E+04	1.17E+04	5.59E+04	9.62E+03	4.61E+04
1.60	1.37E+04	6.45E+04	1.11E+04	5.23E+04	9.02E+03	4.28E+04	7.27E+03	3.46E+04	5.96E+03	2.85E+04
1.70	8.58E+03	4.03E+04	6.91E+03	3.26E+04	5.61E+03	2.66E+04	4.52E+03	2.15E+04	3.70E+03	1.76E+04
1.80	5.36E+03	2.52E+04	4.31E+03	2.03E+04	3.50E+03	1.65E+04	2.81E+03	1.33E+04	2.29E+03	1.09E+04
1.90	3.35E+03	1.57E+04	2.69E+03	1.27E+04	2.18E+03	1.03E+04	1.75E+03	8.29E+03	1.42E+03	6.78E+03
2.00	2.10E+03	9.84E+03	1.68E+03	7.91E+03	1.36E+03	6.42E+03	1.09E+03	5.15E+03	8.85E+02	4.21E+03
2.50	2.01E+02	9.43E+02	1.60E+02	7.52E+02	1.22E+02	6.05E+02	1.02E+02	4.82E+02	8.25E+01	3.90E+02
3.00	1.94E+01	9.07E+01	1.53E+01	7.19E+01	1.22E+01	5.75E+01	9.66E+00	4.55E+01	7.75E+00	3.66E+01
3.50	1.87E+00	8.74E+00	1.47E+00	6.90E+00	1.17E+00	5.49E+00	9.19E+00	4.32E+00	7.33E+00	3.45E+00
4.00	1.81E+01	8.45E+01	1.42E+01	6.63E+01	1.12E+01	5.25E+01	8.77E+02	4.12E+01	6.97E+02	3.28E+01
5.00	1.70E+03	7.92E+03	1.32E+03	6.17E+03	1.04E+03	4.85E+03	8.05E+04	3.77E+03	6.35E+04	2.98E+03



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 3.00$ 

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(E)	J(*E)	J(F)
.01	2.67E+07	7.25E+08	2.52E+07	8.26E+08	2.40E+07	8.72E+08	2.20E+07	8.71E+08	2.17E+07	9.36E+08
.02	2.15E+07	3.66E+08	1.98E+07	3.71E+08	1.84E+07	3.77E+08	1.64E+07	3.64E+08	1.58E+07	3.79E+08
.03	1.86E+07	2.39E+08	1.69E+07	2.37E+08	1.55E+07	2.35E+08	1.36E+07	2.22E+08	1.29E+07	2.26E+08
.04	1.65E+07	1.79E+08	1.49E+07	1.74E+08	1.35E+07	1.69E+08	1.18E+07	1.58E+08	1.11E+07	1.58E+08
.05	1.49E+07	1.43E+08	1.33E+07	1.37E+08	1.20E+07	1.32E+08	1.04E+07	1.21E+08	9.69E+06	1.20E+08
.10	9.96E+06	7.09E+07	8.69E+06	6.49E+07	7.64E+06	5.97E+07	6.45E+06	5.20E+07	5.88E+06	5.00E+07
.20	5.27E+06	3.10E+07	4.49E+06	2.72E+07	3.86E+06	2.40E+07	3.18E+06	2.04E+07	2.83E+06	1.86E+07
.30	2.99E+06	1.64E+07	2.52E+06	1.41E+07	2.13E+06	1.22E+07	1.73E+06	1.01E+07	1.52E+06	9.01E+06
.40	1.75E+06	9.23E+06	1.46E+06	7.81E+06	1.22E+06	6.65E+06	9.84E+05	5.44E+06	8.54E+05	4.79E+06
.50	1.04E+06	5.36E+06	8.61E+05	4.49E+06	7.15E+05	3.78E+06	5.72E+05	3.06E+06	4.92E+05	2.67E+06
.60	6.25E+05	3.17E+06	5.13E+05	2.63E+06	4.24E+05	2.20E+06	3.37E+05	1.76E+06	2.88E+05	1.53E+06
.70	3.78E+05	1.89E+06	3.09E+05	1.56E+06	2.54E+05	1.29E+06	2.00E+05	1.03E+06	1.71E+05	8.87E+05
.80	2.30E+05	1.14E+06	1.87E+05	9.35E+05	1.53E+05	7.71E+05	1.20E+05	6.11E+05	1.02E+05	5.22E+05
.90	1.40E+05	6.90E+05	1.14E+05	5.63E+05	9.24E+04	4.62E+05	7.24E+04	3.65E+05	6.11E+04	3.10E+05
1.00	8.57E+04	4.20E+05	6.92E+04	3.41E+05	5.61E+04	2.79E+05	4.38E+04	2.19E+05	3.68E+04	1.86E+05
1.10	5.26E+04	2.56E+05	4.23E+04	2.08E+05	3.42E+04	1.69E+05	2.66E+04	1.32E+05	2.23E+04	1.12E+05
1.20	3.23E+04	1.57E+05	2.59E+04	1.27E+05	2.09E+04	1.03E+05	1.62E+04	8.02E+04	1.35E+04	6.73E+04
1.30	1.99E+04	9.64E+04	1.59E+04	7.75E+04	1.28E+04	6.27E+04	9.91E+03	4.87E+04	8.25E+03	4.08E+04
1.40	1.23E+04	5.93E+04	9.80E+03	4.75E+04	7.85E+03	3.83E+04	6.06E+03	2.97E+04	5.04E+03	2.48E+04
1.50	7.58E+03	3.65E+04	5.04E+03	2.92E+04	4.83E+03	2.35E+04	3.72E+03	1.82E+04	3.08E+03	1.51E+04
1.60	4.69E+03	2.25E+04	3.72E+03	1.80E+04	2.97E+03	1.44E+04	2.28E+03	1.11E+04	1.89E+03	9.23E+03
1.70	2.90E+03	1.39E+04	2.30E+03	1.11E+04	1.83E+03	8.85E+03	1.40E+03	6.82E+03	1.16E+03	5.65E+03
1.80	1.80E+03	8.60E+03	1.42E+03	6.83E+03	1.13E+03	5.45E+03	8.64E+02	4.19E+03	7.11E+02	3.46E+03
1.90	1.11E+03	5.32E+03	8.79E+02	4.22E+03	6.97E+02	3.36E+03	5.32E+02	2.57E+03	4.38E+02	2.12E+03
2.00	6.90E+02	3.29E+03	5.44E+02	2.61E+03	4.31E+02	2.07E+03	3.28E+02	1.59E+03	2.69E+02	1.30E+03
2.50	6.38E+01	3.03E+02	4.99E+01	2.38E+02	3.92E+01	1.87E+02	2.97E+01	1.42E+02	2.42E+01	1.16E+02
3.00	5.96E+00	2.82E+01	4.64E+00	2.20E+01	3.62E+00	1.72E+01	2.72E+00	1.30E+01	2.20E+00	1.05E+01
3.50	5.61E+01	2.65E+00	4.34E+01	2.05E+00	3.37E+01	1.60E+00	2.52E+01	1.20E+00	2.03E+01	9.65E+01
4.00	5.30E+02	2.50E+01	4.08E+02	1.93E+01	3.16E+02	1.49E+01	2.35E+02	1.11E+01	1.88E+02	8.93E+02
5.00	4.79E+04	2.25E+03	3.66E+04	1.72E+03	2.81E+04	1.32E+03	2.08E+04	9.80E+04	1.65E+04	7.80E+04

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 5.00

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	1.58E+07	6.80E+08	1.80E+07	6.56E+08	1.98E+07	5.87E+08	2.24E+07	5.14E+08	2.42E+07	3.84E+08
.02	1.15E+07	2.75E+08	1.38E+07	2.83E+08	1.59E+07	2.72E+08	1.88E+07	2.60E+08	2.14E+07	2.19E+08
.03	9.40E+06	1.64E+08	1.16E+07	1.77E+08	1.37E+07	1.78E+08	1.57E+07	1.79E+08	1.95E+07	1.64E+08
.04	8.04E+06	1.15E+08	1.01E+07	1.27E+08	1.22E+07	1.33E+08	1.51E+07	1.39E+08	1.80E+07	1.34E+08
.05	7.04E+06	8.69E+07	8.99E+06	9.88E+07	1.10E+07	1.06E+08	1.38E+07	1.15E+08	1.68E+07	1.16E+08
.10	4.27E+06	3.63E+07	5.72E+06	4.47E+07	7.32E+06	5.23E+07	9.66E+06	6.26E+07	1.23E+07	7.11E+07
.20	2.05E+06	1.35E+07	2.88E+06	1.80E+07	3.87E+06	2.28E+07	5.35E+06	2.98E+07	7.16E+06	3.73E+07
.30	1.10E+06	6.55E+06	1.59E+06	9.09E+06	2.19E+06	1.20E+07	3.12E+06	1.64E+07	4.30E+06	2.16E+07
.40	6.21E+05	3.48E+06	9.13E+05	4.97E+06	1.28E+06	6.77E+06	1.86E+06	9.49E+06	2.61E+06	1.29E+07
.50	3.58E+05	1.94E+06	5.34E+05	2.82E+06	7.62E+05	3.92E+06	1.12E+06	5.62E+06	1.60E+06	7.80E+06
.60	2.09E+05	1.11E+06	3.17E+05	1.64E+06	4.57E+05	2.32E+06	6.80E+05	3.37E+06	9.85E+05	4.77E+06
.70	1.24E+05	6.45E+05	1.89E+05	9.67E+05	2.76E+05	1.38E+06	4.15E+05	2.04E+06	6.08E+05	2.93E+06
.80	7.39E+04	3.80E+05	1.14E+05	5.76E+05	1.68E+05	8.33E+05	2.55E+05	1.24E+06	3.76E+05	1.80E+06
.90	4.44E+04	2.25E+05	6.90E+04	3.45E+05	1.02E+05	5.04E+05	1.56E+05	7.60E+05	2.33E+05	1.11E+06
1.00	2.68E+04	1.35E+05	4.19E+04	2.04E+05	6.26E+04	3.07E+05	9.64E+04	4.66E+05	1.45E+05	6.89E+05
1.10	1.62E+04	8.11E+04	2.55E+04	1.26E+05	3.84E+04	1.87E+05	5.95E+04	2.77E+05	8.99E+04	4.27E+05
1.20	9.84E+03	4.89E+04	1.56E+04	7.67E+04	2.36E+04	1.15E+05	3.68E+04	1.77E+05	5.59E+04	2.65E+05
1.30	5.99E+03	2.97E+04	9.56E+03	4.68E+04	1.45E+04	7.03E+04	2.28E+04	1.09E+05	3.48E+04	1.65E+05
1.40	3.66E+03	1.80E+04	5.86E+03	2.96E+04	8.95E+03	4.32E+04	1.41E+04	6.74E+04	2.17E+04	1.03E+05
1.50	2.24E+03	1.10E+04	3.60E+03	1.75E+04	5.53E+03	2.66E+04	8.75E+03	4.18E+04	1.35E+04	6.39E+04
1.60	1.37E+03	6.71E+03	2.22E+03	1.07E+04	3.42E+03	1.64E+04	5.43E+03	2.59E+04	8.43E+03	3.98E+04
1.70	8.41E+02	4.10E+03	1.37E+03	6.61E+03	2.11E+03	1.01E+04	3.37E+03	1.60E+04	5.26E+03	2.48E+04
1.80	5.17E+02	2.51E+03	8.42E+02	4.07E+03	1.31E+03	6.27E+03	2.10E+03	9.96E+03	3.28E+03	1.55E+04
1.90	3.18E+02	1.54E+03	5.20E+02	2.51E+03	8.11E+02	3.88E+03	1.30E+03	6.19E+03	2.05E+03	9.65E+03
2.00	1.96E+02	9.48E+02	3.21E+02	1.55E+03	5.03E+02	2.40E+03	8.11E+02	3.85E+03	1.28E+03	6.02E+03
2.50	1.76E+01	8.44E+01	2.93E+01	1.40E+02	4.65E+01	2.21E+02	7.61E+01	3.59E+02	1.22E+02	5.73E+02
3.00	1.60E+00	7.64E+00	2.70E+00	1.26E+01	4.34E+00	2.05E+01	7.19E+00	3.39E+01	1.17E+01	5.47E+01
3.50	1.47E-01	7.01E-01	2.51E-01	1.19E+00	4.08E-01	1.93E+00	6.43E-01	3.21E+00	1.12E+00	5.25E+00
4.00	1.37E-02	6.49E-02	2.35E-02	1.11E-01	3.86E-02	1.82E-01	6.52E-02	3.06E-01	1.08E-01	5.05E-01
5.00	1.20E-04	5.67E-04	2.09E-04	9.87E-04	3.48E-04	1.64E-03	5.97E-04	2.80E-03	1.01E-03	4.70E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 5.00

L.T. ■ E(MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	2.66E+07	2.67E+08	2.92E+07	1.56E+08	3.22E+07	1.01E+08	3.33E+07	5.83E+07	3.30E+07	3.14E+07
.02	2.44E+07	1.80E+08	2.78E+07	1.39E+08	3.10E+07	1.21E+08	3.24E+07	1.04E+08	3.23E+07	9.05E+07
.03	2.28E+07	1.47E+08	2.64E+07	1.29E+08	2.98E+07	1.24E+08	3.13E+07	1.15E+08	3.13E+07	1.07E+08
.04	2.14E+07	1.29E+08	2.52E+07	1.21E+08	2.86E+07	1.22E+08	3.01E+07	1.18E+08	3.02E+07	1.12E+08
.05	2.02E+07	1.16E+08	2.40E+07	1.15E+08	2.74E+07	1.19E+08	2.90E+07	1.18E+08	2.91E+07	1.14E+08
.10	1.54E+07	8.02E+07	1.89E+07	8.93E+07	2.19E+07	9.87E+07	2.34E+07	1.02E+08	2.36E+07	1.01E+08
.20	9.34E+06	4.80E+07	1.18E+07	5.54E+07	1.39E+07	6.37E+07	1.50E+07	6.76E+07	1.52E+07	6.80E+07
.30	5.74E+06	2.77E+07	7.40E+06	3.46E+07	8.79E+06	4.05E+07	9.53E+06	4.34E+07	9.71E+06	4.39E+07
.40	3.55E+06	1.70E+07	4.64E+06	2.17E+07	5.55E+06	2.56E+07	6.04E+06	2.76E+07	6.16E+06	2.81E+07
.50	2.20E+06	1.05E+07	2.91E+06	1.36E+07	3.49E+06	1.61E+07	3.82E+06	1.75E+07	3.90E+06	1.79E+07
.60	1.37E+06	6.49E+06	1.83E+06	8.51E+06	2.20E+06	1.02E+07	2.41E+06	1.11E+07	2.47E+06	1.13E+07
.70	8.53E+05	4.03E+06	1.15E+06	5.34E+06	1.39E+06	6.41E+06	1.52E+06	7.01E+06	1.56E+06	7.17E+06
.80	5.32E+05	2.51E+06	7.19E+05	3.35E+06	8.72E+05	4.04E+06	9.59E+05	4.42E+06	9.84E+05	4.53E+06
.90	3.32E+05	1.56E+06	4.51E+05	2.10E+06	5.49E+05	2.54E+06	6.04E+05	2.79E+06	6.20E+05	2.86E+06
1.00	2.07E+05	9.76E+05	2.83E+05	1.32E+06	3.45E+05	1.60E+06	3.81E+05	1.76E+06	3.91E+05	1.81E+06
1.10	1.30E+05	6.09E+05	1.78E+05	8.27E+05	2.17E+05	1.01E+06	2.40E+05	1.11E+06	2.47E+05	1.14E+06
1.20	8.10E+04	3.80E+05	1.12E+05	5.19E+05	1.36E+05	6.33E+05	1.51E+05	6.98E+05	1.55E+05	7.18E+05
1.30	5.06E+04	2.38E+05	7.00E+04	3.26E+05	8.58E+04	3.98E+05	9.50E+04	4.40E+05	9.79E+04	4.52E+05
1.40	3.17E+04	1.49E+05	4.39E+04	2.05E+05	5.40E+04	2.50E+05	5.98E+04	2.77E+05	6.16E+04	2.85E+05
1.50	1.98E+04	9.22E+04	2.76E+04	1.28E+05	3.39E+04	1.57E+05	3.76E+04	1.74E+05	3.88E+04	1.80E+05
1.60	1.24E+04	5.81E+04	1.73E+04	8.06E+04	2.13E+04	9.90E+04	2.37E+04	1.10E+05	2.44E+04	1.13E+05
1.70	7.77E+03	3.64E+04	1.09E+04	5.06E+04	1.34E+04	6.22E+04	1.49E+04	6.90E+04	1.54E+04	7.12E+04
1.80	4.86E+03	2.28E+04	6.82E+03	3.18E+04	8.43E+03	3.91E+04	9.37E+03	4.34E+04	9.68E+03	4.48E+04
1.90	3.05E+03	1.43E+04	4.28E+03	1.99E+04	5.30E+03	2.46E+04	5.90E+03	2.73E+04	6.09E+03	2.82E+04
2.00	1.91E+03	8.92E+03	2.69E+03	1.25E+04	3.33E+03	1.55E+04	3.71E+03	1.72E+04	3.83E+03	1.78E+04
2.50	1.84E+02	8.61E+02	2.62E+02	1.22E+03	3.27E+02	1.52E+03	3.65E+02	1.69E+03	3.78E+02	1.75E+03
3.00	1.78E+01	8.32E+01	2.56E+01	1.19E+02	3.20E+01	1.49E+02	3.58E+01	1.66E+02	3.72E+01	1.72E+02
3.50	1.73E+00	8.06E+00	2.50E+00	1.16E+01	3.13E+00	1.46E+01	3.52E+00	1.63E+01	3.65E+00	1.69E+01
4.00	1.68E-01	7.82E-01	2.44E-01	1.14E+00	3.07E-01	1.43E+00	3.45E-01	1.60E+00	3.59E-01	1.67E+00
5.00	1.58E-03	7.37E-03	2.33E-03	1.08E-02	2.94E-03	1.37E-02	3.32E-03	1.54E-02	3.45E-03	1.60E-02

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 5.00$ 

L.T. *	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.10E+07	3.57E+07	2.89E+07	7.10E+07	2.79E+07	1.30E+08	2.67E+07	1.88E+08	2.57E+07	2.53E+08
.02	3.03E+07	8.79E+07	2.81E+07	9.96E+07	2.67E+07	1.24E+08	2.51E+07	1.47E+08	2.36E+07	1.71E+08
.03	2.94E+07	1.02E+08	2.70E+07	1.06E+08	2.54E+07	1.18E+08	2.37E+07	1.29E+08	2.21E+07	1.41E+08
.04	2.83E+07	1.07E+08	2.60E+07	1.06E+08	2.43E+07	1.13E+08	2.25E+07	1.18E+08	2.08E+07	1.24E+08
.05	2.72E+07	1.08E+08	2.49E+07	1.05E+08	2.32E+07	1.08E+08	2.14E+07	1.10E+08	1.96E+07	1.11E+08
.10	2.21E+07	9.51E+07	2.00E+07	8.88E+07	1.84E+07	8.55E+07	1.66E+07	8.14E+07	1.50E+07	7.74E+07
.20	1.42E+07	6.37E+07	1.28E+07	5.80E+07	1.15E+07	5.37E+07	1.03E+07	4.90E+07	9.07E+06	4.46E+07
.30	9.06E+06	4.11E+07	8.10E+06	3.71E+07	7.25E+06	3.37E+07	6.39E+06	3.03E+07	5.58E+06	2.69E+07
.40	5.75E+06	2.62E+07	5.12E+06	2.35E+07	4.55E+06	2.12E+07	3.99E+06	1.88E+07	3.45E+06	1.65E+07
.50	3.64E+06	1.67E+07	3.23E+06	1.49E+07	2.86E+06	1.33E+07	2.49E+06	1.17E+07	2.14E+06	1.02E+07
.60	2.30E+06	1.06E+07	2.04E+06	9.40E+06	1.80E+06	8.35E+06	1.56E+06	7.31E+06	1.33E+06	6.32E+06
.70	1.45E+06	6.48E+06	1.28E+06	5.93E+06	1.13E+06	5.25E+06	9.75E+05	4.57E+06	8.31E+05	3.93E+06
.80	9.17E+05	4.22E+06	8.09E+05	3.74E+06	7.08E+05	3.29E+06	6.10E+05	2.80E+06	5.18E+05	2.44E+06
.90	5.78E+05	2.67E+06	5.09E+05	2.36E+06	4.45E+05	2.07E+06	3.82E+05	1.79E+06	3.23E+05	1.52E+06
1.00	3.64E+05	1.68E+06	3.20E+05	1.48E+06	2.79E+05	1.30E+06	2.39E+05	1.12E+06	2.02E+05	9.50E+05
1.10	2.30E+05	1.06E+06	2.02E+05	9.34E+05	1.75E+05	8.16E+05	1.50E+05	7.01E+05	1.26E+05	5.93E+05
1.20	1.45E+05	6.69E+05	1.27E+05	5.88E+05	1.10E+05	5.13E+05	9.40E+04	4.39E+05	7.89E+04	3.71E+05
1.30	9.11E+04	4.21E+05	7.99E+04	3.70E+05	6.92E+04	3.22E+05	5.90E+04	2.75E+05	4.94E+04	2.32E+05
1.40	5.74E+04	2.45E+05	5.02E+04	2.33E+05	4.35E+04	2.02E+05	3.70E+04	1.73E+05	3.09E+04	1.45E+05
1.50	3.61E+04	1.67E+05	3.16E+04	1.47E+05	2.73E+04	1.27E+05	2.32E+04	1.08E+05	1.93E+04	9.06E+04
1.60	2.27E+04	1.05E+05	1.99E+04	9.22E+04	1.72E+04	7.98E+04	1.45E+04	6.78E+04	1.21E+04	5.67E+04
1.70	1.43E+04	6.63E+04	1.25E+04	5.80E+04	1.08E+04	5.01E+04	9.11E+03	4.25E+04	7.58E+03	3.55E+04
1.80	9.01E+03	4.17E+04	7.86E+03	3.65E+04	6.77E+03	3.15E+04	5.72E+03	2.67E+04	4.74E+03	2.22E+04
1.90	5.67E+03	2.63E+04	4.94E+03	2.29E+04	4.25E+03	1.98E+04	3.59E+03	1.67E+04	2.97E+03	1.39E+04
2.00	3.57E+03	1.45E+04	3.11E+03	1.44E+04	2.67E+03	1.24E+04	2.25E+03	1.05E+04	1.86E+03	8.70E+03
2.50	3.51E+02	1.63E+03	3.05E+02	1.42E+03	2.61E+02	1.21E+03	2.19E+02	1.02E+03	1.80E+02	8.40E+02
3.00	3.60E+01	1.60E+02	2.99E+01	1.39E+02	2.55E+01	1.19E+02	2.13E+01	9.91E+01	1.74E+01	8.12E+01
3.50	3.39E+00	1.57E+01	2.94E+00	1.36E+01	2.49E+00	1.16E+01	2.07E+00	9.65E+00	1.69E+00	7.87E+00
4.00	3.33E-01	1.55E+00	2.88E-01	1.34E+00	2.43E-01	1.13E+00	2.02E-01	9.40E-01	1.64E-01	7.64E-01
5.00	3.21E-03	1.49E-02	2.76E-03	1.28E-02	2.32E-03	1.08E-02	1.92E-03	8.92E-03	1.55E-03	7.21E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 5.00$ 

L.T. = E(MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	2.45E+07	3.12E+08	2.33E+07	3.71E+08	2.23E+07	4.27E+08	2.12E+07	4.77E+08	2.07E+07	5.35E+08
.02	2.21E+07	1.92E+08	2.05E+07	2.11E+08	1.92E+07	2.29E+08	1.79E+07	2.43E+08	1.70E+07	2.60E+08
.03	2.04E+07	1.50E+08	1.87E+07	1.58E+08	1.73E+07	1.64E+08	1.59E+07	1.68E+08	1.49E+07	1.75E+08
.04	1.90E+07	1.27E+08	1.73E+07	1.29E+08	1.58E+07	1.31E+08	1.44E+07	1.31E+08	1.34E+07	1.33E+08
.05	1.79E+07	1.12E+08	1.61E+07	1.11E+08	1.46E+07	1.11E+08	1.32E+07	1.09E+08	1.22E+07	1.09E+08
.10	1.34E+07	7.30E+07	1.18E+07	6.82E+07	1.05E+07	6.40E+07	9.27E+06	5.96E+07	8.35E+06	5.66E+07
.20	7.94E+06	4.02E+07	6.85E+06	3.57E+07	5.96E+06	3.20E+07	5.15E+06	2.85E+07	4.53E+06	2.59E+07
.30	4.83E+06	2.38E+07	4.11E+06	2.07E+07	3.53E+06	1.81E+07	3.01E+06	1.58E+07	2.61E+06	1.40E+07
.40	2.96E+06	1.44E+07	2.50E+06	1.23E+07	2.13E+06	1.07E+07	1.80E+06	9.15E+06	1.54E+06	7.99E+06
.50	1.83E+06	8.79E+06	1.53E+06	7.47E+06	1.29E+06	6.39E+06	1.08E+06	5.43E+06	9.24E+05	4.69E+06
.60	1.13E+06	5.41E+06	9.42E+05	4.56E+06	7.91E+05	3.87E+06	6.59E+05	3.26E+06	5.58E+05	2.79E+06
.70	7.01E+05	3.34E+06	5.81E+05	2.80E+06	4.86E+05	2.36E+06	4.03E+05	1.97E+06	3.39E+05	1.68E+06
.80	4.36E+05	2.17E+06	3.60E+05	1.72E+06	2.99E+05	1.45E+06	2.47E+05	1.20E+06	2.07E+05	1.02E+06
.90	2.71E+05	1.28E+06	2.23E+05	1.06E+06	1.85E+05	8.89E+05	1.52E+05	7.36E+05	1.27E+05	6.20E+05
1.00	1.69E+05	7.99E+05	1.38E+05	6.59E+05	1.14E+05	5.48E+05	9.36E+04	4.52E+05	7.80E+04	3.79E+05
1.10	1.05E+05	4.97E+05	8.59E+04	4.09E+05	7.08E+04	3.39E+05	5.78E+04	2.78E+05	4.80E+04	2.32E+05
1.20	6.56E+04	3.10E+05	5.34E+04	2.54E+05	4.39E+04	2.10E+05	3.57E+04	1.72E+05	2.96E+04	1.43E+05
1.30	4.09E+04	1.93E+05	3.33E+04	1.58E+05	2.73E+04	1.30E+05	2.21E+04	1.06E+05	1.83E+04	8.80E+04
1.40	2.56E+04	1.20E+05	2.07E+04	9.80E+04	1.69E+04	8.05E+04	1.37E+04	6.56E+04	1.13E+04	5.42E+04
1.50	1.60E+04	7.51E+04	1.29E+04	6.10E+04	1.05E+04	5.00E+04	8.51E+03	4.06E+04	6.99E+03	3.35E+04
1.60	9.97E+03	4.69E+04	8.05E+03	3.80E+04	6.55E+03	3.11E+04	5.28E+03	2.52E+04	4.33E+03	2.07E+04
1.70	6.23E+03	2.93E+04	5.02E+03	2.37E+04	4.08E+03	1.93E+04	3.28E+03	1.56E+04	2.69E+03	1.28E+04
1.80	3.90E+03	1.83E+04	3.13E+03	1.48E+04	2.54E+03	1.20E+04	2.04E+03	9.70E+03	1.67E+03	7.95E+03
1.90	2.44E+03	1.14E+04	1.96E+03	9.21E+03	1.58E+03	7.49E+03	1.27E+03	6.02E+03	1.03E+03	4.93E+03
2.00	1.52E+03	7.15E+03	1.22E+03	5.75E+03	9.87E+02	4.66E+03	7.90E+02	3.75E+03	4.43E+02	3.06E+03
2.50	1.46E+02	6.85E+02	1.16E+02	5.47E+02	9.34E+01	4.10E+02	7.42E+01	3.50E+02	5.99E+01	2.84E+02
3.00	1.41E+01	6.59E+01	1.11E+01	5.22E+01	8.89E+00	4.18E+01	7.02E+00	3.31E+01	5.63E+00	2.66E+01
3.50	1.36E+00	6.35E+00	1.07E+00	5.01E+00	8.49E-01	3.99E+00	6.68E-01	3.14E+00	5.33E-01	2.51E+00
4.00	1.31E-01	6.14E-01	1.03E-01	4.82E-01	8.14E-02	3.82E-01	6.37E-02	2.99E-01	5.06E-02	2.38E-01
5.00	1.23E-03	5.75E-03	9.59E-04	4.48E-03	7.53E-04	3.52E-03	5.85E-04	2.74E-03	4.61E-04	2.16E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 5.00$ 

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	1.94E+07	5.70E+08	1.83E+07	6.01E+08	1.75E+07	6.33E+08	1.60E+07	6.33E+08	1.58E+07	6.80E+08
.02	1.56E+07	2.66E+08	1.44E+07	2.69E+08	1.34E+07	2.74E+08	1.20E+07	2.65E+08	1.15E+07	2.75E+08
.03	1.35E+07	1.74E+08	1.23E+07	1.72E+08	1.13E+07	1.71E+08	9.90E+06	1.62E+08	9.40E+06	1.64E+08
.04	1.20E+07	1.30E+08	1.08E+07	1.26E+08	9.81E+06	1.23E+08	8.54E+06	1.14E+08	8.04E+06	1.15E+08
.05	1.08E+07	1.04E+08	9.68E+06	9.95E+07	8.72E+06	9.57E+07	7.54E+06	8.79E+07	7.04E+06	8.69E+07
.10	7.24E+06	5.15E+07	6.32E+06	4.71E+07	5.55E+06	4.34E+07	4.69E+06	3.82E+07	4.27E+06	3.63E+07
.20	3.83E+06	2.25E+07	3.27E+06	1.98E+07	2.80E+06	1.75E+07	2.31E+06	1.48E+07	2.05E+06	1.35E+07
.30	2.18E+06	1.19E+07	1.83E+06	1.02E+07	1.55E+06	8.83E+06	1.26E+06	7.33E+06	1.10E+06	6.55E+06
.40	1.27E+06	6.71E+06	1.06E+06	5.68E+06	8.88E+05	4.83E+06	7.15E+05	3.95E+06	6.21E+05	3.48E+06
.50	7.57E+05	3.89E+06	6.25E+05	3.26E+06	5.20E+05	2.75E+06	4.15E+05	2.22E+06	3.58E+05	1.94E+06
.60	4.54E+05	2.30E+06	3.73E+05	1.91E+06	3.08E+05	1.60E+06	2.45E+05	1.28E+06	2.09E+05	1.11E+06
.70	2.75E+05	1.37E+06	2.24E+05	1.13E+06	1.84E+05	9.40E+05	1.46E+05	7.50E+05	1.24E+05	6.45E+05
.80	1.67E+05	8.28E+05	1.36E+05	6.79E+05	1.11E+05	5.60E+05	8.73E+04	4.44E+05	7.39E+04	3.80E+05
.90	1.02E+05	5.02E+05	8.25E+04	4.09E+05	6.72E+04	3.36E+05	5.26E+04	2.65E+05	4.44E+04	2.25E+05
1.00	6.23E+04	3.05E+05	5.03E+04	2.48E+05	4.08E+04	2.03E+05	3.19E+04	1.59E+05	2.68E+04	1.35E+05
1.10	3.82E+04	1.86E+05	3.08E+04	1.51E+05	2.49E+04	1.23E+05	1.93E+04	9.62E+04	1.62E+04	8.11E+04
1.20	2.35E+04	1.14E+05	1.88E+04	9.21E+04	1.52E+04	7.47E+04	1.18E+04	5.83E+04	9.84E+03	4.89E+04
1.30	1.45E+04	7.00E+04	1.16E+04	5.63E+04	9.30E+03	4.55E+04	7.20E+03	3.54E+04	5.99E+03	2.97E+04
1.40	8.92E+03	4.31E+04	7.12E+03	3.45E+04	5.71E+03	2.78E+04	4.41E+03	2.16E+04	3.66E+03	1.80E+04
1.50	5.51E+03	2.65E+04	4.39E+03	2.12E+04	3.51E+03	1.71E+04	2.70E+03	1.32E+04	2.24E+03	1.10E+04
1.60	3.41E+03	1.64E+04	2.71E+03	1.31E+04	2.16E+03	1.05E+04	1.66E+03	8.08E+03	1.37E+03	6.71E+03
1.70	2.11E+03	1.01E+04	1.67E+03	8.04E+03	1.33E+03	6.43E+03	1.02E+03	4.95E+03	8.41E+02	4.10E+03
1.80	1.30E+03	6.25E+03	1.03E+03	4.96E+03	8.20E+02	3.96E+03	6.28E+02	3.04E+03	5.17E+02	2.51E+03
1.90	8.09E+02	3.87E+03	6.39E+02	3.06E+03	5.06E+02	2.44E+03	3.89E+02	1.87E+03	3.18E+02	1.54E+03
2.00	5.01E+02	2.39E+03	3.95E+02	1.89E+03	3.13E+02	1.51E+03	2.39E+02	1.15E+03	1.96E+02	9.44E+02
2.50	4.64E+01	2.20E+02	3.63E+01	1.73E+02	2.85E+01	1.36E+02	2.16E+01	1.03E+02	1.76E+01	8.44E+01
3.00	4.33E+00	2.05E+01	3.37E+00	1.60E+01	2.63E+00	1.25E+01	1.98E+00	9.43E+00	1.60E+00	7.64E+00
3.50	4.08E+01	1.92E+00	3.15E+01	1.49E+00	2.45E+01	1.16E+00	1.83E+01	8.70E+01	1.47E+01	7.01E+01
4.00	3.85E+02	1.62E+01	2.97E+02	1.40E+01	2.29E+02	1.08E+01	1.71E+02	8.09E+02	1.37E+02	6.49E+02
5.00	3.48E+04	1.64E+03	2.66E+04	1.25E+03	2.04E+04	9.62E+04	1.51E+04	7.12E+04	1.20E+04	5.67E+04

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 10.00

L.T. = E (MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	1.02E+07	4.41E+08	1.17E+07	4.25E+08	1.28E+07	3.80E+08	1.45E+07	3.33E+08	1.57E+07	2.49E+08
.02	7.47E+06	1.78E+08	8.96E+06	1.84E+08	1.03E+07	1.77E+08	1.22E+07	1.68E+08	1.39E+07	1.42E+08
.03	6.10E+06	1.07E+08	7.52E+06	1.14E+08	8.88E+06	1.15E+08	1.08E+07	1.16E+08	1.27E+07	1.06E+08
.04	5.21E+06	7.44E+07	6.55E+06	8.24E+07	7.89E+06	8.60E+07	9.79E+06	9.04E+07	1.17E+07	8.72E+07
.05	4.56E+06	5.64E+07	5.83E+06	6.41E+07	7.12E+06	8.87E+07	8.97E+06	7.46E+07	1.09E+07	7.51E+07
.10	2.77E+06	2.35E+07	3.71E+06	2.90E+07	4.75E+06	3.39E+07	6.26E+06	4.06E+07	7.99E+06	4.61E+07
.20	1.33E+06	8.76E+06	1.87E+06	1.17E+07	2.51E+06	1.48E+07	3.47E+06	1.93E+07	4.64E+06	2.42E+07
.30	7.16E+05	4.25E+06	1.03E+06	5.89E+06	1.42E+06	7.80E+06	2.02E+06	1.06E+07	2.79E+06	1.40E+07
.40	4.02E+05	2.26E+06	5.92E+05	3.22E+06	8.31E+05	4.39E+06	1.20E+06	4.15E+06	1.69E+06	8.36E+06
.50	2.32E+05	1.26E+06	3.46E+05	1.83E+06	4.94E+05	2.54E+06	7.26E+05	3.64E+06	1.04E+06	5.06E+06
.60	1.36E+05	7.19E+05	2.05E+05	1.06E+06	2.96E+05	1.50E+06	4.41E+05	2.19E+06	6.39E+05	3.09E+06
.70	8.04E+04	4.18E+05	1.23E+05	6.27E+05	1.79E+05	8.97E+05	2.69E+05	1.32E+06	3.94E+05	1.90E+06
.80	4.79E+04	2.46E+05	7.39E+04	3.73E+05	1.09E+05	5.40E+05	1.65E+05	8.06E+05	2.44E+05	1.17E+06
.90	2.88E+04	1.46E+05	4.47E+04	2.24E+05	6.63E+04	3.27E+05	1.01E+05	4.93E+05	1.51E+05	7.22E+05
1.00	1.74E+04	8.74E+04	2.72E+04	1.35E+05	4.06E+04	1.99E+05	6.25E+04	3.02E+05	9.39E+04	4.47E+05
1.10	1.05E+04	5.26E+04	1.66E+04	8.18E+04	2.49E+04	1.21E+05	3.86E+04	1.86E+05	5.83E+04	2.77E+05
1.20	6.38E+03	3.17E+04	1.01E+04	4.97E+04	1.53E+04	7.43E+04	2.38E+04	1.15E+05	3.63E+04	1.72E+05
1.30	3.89E+03	1.92E+04	6.20E+03	3.03E+04	9.42E+03	4.56E+04	1.48E+04	7.07E+04	2.26E+04	1.07E+05
1.40	2.37E+03	1.17E+04	3.80E+03	1.85E+04	5.81E+03	2.80E+04	9.15E+03	4.37E+04	1.41E+04	6.65E+04
1.50	1.45E+03	7.12E+03	2.34E+03	1.14E+04	3.58E+03	1.73E+04	5.67E+03	2.71E+04	8.76E+03	4.14E+04
1.60	8.89E+02	4.35E+03	1.44E+03	6.97E+03	2.21E+03	1.06E+04	3.52E+03	1.68E+04	5.47E+03	2.58E+04
1.70	5.45E+02	2.66E+03	8.85E+02	4.28E+03	1.37E+03	6.57E+03	2.19E+03	1.04E+04	3.41E+03	1.61E+04
1.80	3.35E+02	1.63E+03	5.46E+02	2.64E+03	8.48E+02	4.06E+03	1.33E+03	6.46E+03	2.13E+03	1.00E+04
1.90	2.06E+02	1.00E+03	3.37E+02	1.62E+03	5.26E+02	2.51E+03	8.45E+02	4.01E+03	1.33E+03	6.26E+03
2.00	1.27E+02	6.15E+02	2.08E+02	1.00E+03	3.26E+02	1.56E+03	5.26E+02	2.49E+03	8.29E+02	3.90E+03
2.50	1.14E+01	5.47E+01	1.90E+01	9.06E+01	3.01E+01	1.43E+02	4.93E+01	2.33E+02	7.91E+01	3.71E+02
3.00	1.04E+00	4.96E+00	1.75E+00	8.32E+00	2.81E+00	1.33E+01	4.66E+00	2.20E+01	7.57E+00	3.55E+01
3.50	9.55E-02	4.55E-01	1.63E-01	7.72E-01	2.64E-01	1.25E+00	4.43E-01	2.08E+00	7.27E-01	3.40E+00
4.00	8.87E-03	4.21E-02	1.53E-02	7.22E-02	2.50E-02	1.18E-01	4.23E-02	1.98E-01	7.00E-02	3.28E-01
5.00	7.77E-05	3.67E-04	1.36E-04	6.40E-04	2.26E-04	1.06E-03	3.87E-04	1.82E-03	6.52E-04	3.05E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 10.00$ 

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	1.72E+07	1.73E+08	1.89E+07	1.01E+08	2.09E+07	6.58E+07	2.16E+07	3.78E+07	2.14E+07	2.03E+07
.02	1.58E+07	1.16E+08	1.80E+07	9.00E+07	2.01E+07	7.85E+07	2.10E+07	6.73E+07	2.09E+07	5.87E+07
.03	1.48E+07	9.54E+07	1.71E+07	8.37E+07	1.93E+07	8.03E+07	2.03E+07	7.48E+07	2.03E+07	6.93E+07
.04	1.39E+07	8.34E+07	1.63E+07	7.88E+07	1.85E+07	7.93E+07	1.95E+07	7.67E+07	1.96E+07	7.29E+07
.05	1.31E+07	7.52E+07	1.56E+07	7.45E+07	1.78E+07	7.72E+07	1.88E+07	7.64E+07	1.88E+07	7.37E+07
.10	1.00E+07	5.20E+07	1.23E+07	5.79E+07	1.42E+07	6.40E+07	1.52E+07	6.62E+07	1.53E+07	6.56E+07
.20	6.06E+06	2.98E+07	7.67E+06	3.59E+07	9.02E+06	4.13E+07	9.73E+06	4.38E+07	8.87E+06	4.41E+07
.30	3.72E+06	1.80E+07	4.80E+06	2.24E+07	5.70E+06	2.62E+07	6.18E+06	2.82E+07	6.29E+06	2.85E+07
.40	2.70E+06	1.10E+07	3.01E+06	1.41E+07	3.60E+06	1.66E+07	3.92E+06	1.79E+07	3.99E+06	1.82E+07
.50	1.43E+06	6.80E+06	1.89E+06	8.80E+06	2.27E+06	1.05E+07	2.47E+06	1.14E+07	2.53E+06	1.16E+07
.60	8.88E+05	4.21E+06	1.18E+06	5.52E+06	1.43E+06	6.60E+06	1.56E+06	7.19E+06	1.60E+06	7.34E+06
.70	5.53E+05	2.62E+06	7.43E+05	3.46E+06	8.98E+05	4.16E+06	9.86E+05	4.54E+06	1.01E+06	4.65E+06
.80	3.45E+05	1.63E+06	4.66E+05	2.17E+06	5.65E+05	2.62E+06	6.22E+05	2.87E+06	6.38E+05	2.94E+06
.90	2.15E+05	1.01E+06	2.92E+05	1.38E+06	3.56E+05	1.65E+06	3.92E+05	1.81E+06	4.02E+05	1.85E+06
1.00	1.34E+05	6.83E+05	1.84E+05	8.55E+05	2.24E+05	1.04E+06	2.47E+05	1.14E+06	2.54E+05	1.17E+06
1.10	8.40E+04	3.95E+05	1.15E+05	5.37E+05	1.41E+05	6.53E+05	1.55E+05	7.19E+05	1.60E+05	7.38E+05
1.20	5.25E+04	2.47E+05	7.23E+04	3.37E+05	8.85E+04	4.11E+05	9.79E+04	4.53E+05	1.01E+05	4.65E+05
1.30	3.28E+04	1.54E+05	4.54E+04	2.11E+05	5.57E+04	2.58E+05	6.16E+04	2.85E+05	6.35E+04	2.93E+05
1.40	2.05E+04	9.63E+04	2.85E+04	1.33E+05	3.50E+04	1.62E+05	3.88E+04	1.80E+05	4.00E+04	1.85E+05
1.50	1.29E+04	6.02E+04	1.79E+04	8.33E+04	2.20E+04	1.02E+05	2.44E+04	1.13E+05	2.55E+04	1.16E+05
1.60	8.04E+03	3.77E+04	1.12E+04	5.23E+04	1.38E+04	6.42E+04	1.54E+04	7.11E+04	1.58E+04	7.33E+04
1.70	5.04E+03	2.36E+04	7.05E+03	3.24E+04	8.69E+03	4.04E+04	9.66E+03	4.48E+04	9.97E+03	4.62E+04
1.80	3.15E+03	1.48E+04	4.43E+03	2.06E+04	5.47E+03	2.54E+04	6.08E+03	2.82E+04	6.28E+03	2.91E+04
1.90	1.97E+03	9.24E+03	2.78E+03	1.29E+04	3.44E+03	1.60E+04	3.82E+03	1.77E+04	3.95E+03	1.83E+04
2.00	1.24E+03	5.79E+03	1.74E+03	8.12E+03	2.16E+03	1.00E+04	2.40E+03	1.11E+04	2.49E+03	1.15E+04
2.50	1.19E+02	5.58E+02	1.70E+02	7.92E+02	2.12E+02	9.84E+02	2.37E+02	1.10E+03	2.45E+02	1.14E+03
3.00	1.12E+01	5.40E+01	1.66E+01	7.73E+01	2.03E+01	9.64E+01	2.32E+01	1.08E+02	2.41E+01	1.12E+02
3.50	1.12E+00	5.23E+00	1.62E+00	7.55E+00	2.03E+00	9.44E+00	2.28E+00	1.06E+01	2.37E+00	1.10E+01
4.00	1.09E-01	5.07E-01	1.58E-01	7.37E-01	1.99E-01	9.25E-01	2.24E-01	1.04E+00	2.33E-01	1.08E+00
5.00	1.03E-03	4.78E-03	1.51E-03	7.02E-03	1.91E-03	8.86E-03	2.15E-03	9.99E-03	2.24E-03	1.04E-02



Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 10.00$ 

L.T. #	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	2.01E+07	2.31E+07	1.88E+07	4.60E+07	1.81E+07	8.42E+07	1.73E+07	1.22E+08	1.66E+07	1.64E+08
.02	1.97E+07	5.70E+07	1.82E+07	6.46E+07	1.73E+07	8.04E+07	1.63E+07	9.52E+07	1.53E+07	1.11E+08
.03	1.90E+07	6.63E+07	1.75E+07	6.86E+07	1.65E+07	7.67E+07	1.54E+07	8.39E+07	1.43E+07	9.14E+07
.04	1.84E+07	6.93E+07	1.68E+07	6.90E+07	1.58E+07	7.33E+07	1.45E+07	7.66E+07	1.35E+07	8.01E+07
.05	1.77E+07	6.98E+07	1.61E+07	6.80E+07	1.50E+07	6.99E+07	1.38E+07	7.10E+07	1.27E+07	7.23E+07
.10	1.43E+07	6.17E+07	1.30E+07	5.76E+07	1.19E+07	5.54E+07	1.04E+07	5.28E+07	9.71E+06	5.02E+07
.20	9.22E+06	4.13E+07	8.28E+06	3.76E+07	7.48E+06	3.48E+07	6.67E+06	3.18E+07	5.88E+06	2.89E+07
.30	5.88E+06	2.66E+07	5.25E+06	2.40E+07	4.70E+06	2.19E+07	4.15E+06	1.96E+07	3.62E+06	1.75E+07
.40	3.73E+06	1.70E+07	3.32E+06	1.53E+07	2.95E+06	1.37E+07	2.59E+06	1.22E+07	2.24E+06	1.07E+07
.50	2.36E+06	1.08E+07	2.09E+06	9.65E+06	1.85E+06	8.42E+06	1.62E+06	7.59E+06	1.39E+06	6.61E+06
.60	1.49E+06	6.85E+06	1.32E+06	6.09E+06	1.16E+06	5.42E+06	1.01E+06	4.74E+06	8.65E+05	4.10E+06
.70	9.42E+05	4.33E+06	8.32E+05	3.84E+06	7.31E+05	3.40E+06	6.32E+05	2.96E+06	5.39E+05	2.55E+06
.80	5.94E+05	2.74E+06	5.24E+05	2.42E+06	4.59E+05	2.14E+06	3.96E+05	1.85E+06	3.36E+05	1.58E+06
.90	3.75E+05	1.73E+06	3.30E+05	1.53E+06	2.88E+05	1.34E+06	2.48E+05	1.16E+06	2.10E+05	9.88E+05
1.00	2.36E+05	1.09E+06	2.08E+05	9.62E+05	1.81E+05	8.43E+05	1.55E+05	7.26E+05	1.31E+05	6.16E+05
1.10	1.49E+05	6.88E+05	1.31E+05	6.05E+05	1.14E+05	5.29E+05	9.73E+04	4.55E+05	8.19E+04	3.85E+05
1.20	9.38E+04	4.34E+05	8.23E+04	3.61E+05	7.15E+04	3.32E+05	6.10E+04	2.85E+05	5.12E+04	2.40E+05
1.30	5.91E+04	2.73E+05	5.18E+04	2.40E+05	4.49E+04	2.09E+05	3.62E+04	1.79E+05	3.20E+04	1.50E+05
1.40	3.72E+04	1.72E+05	3.26E+04	1.51E+05	2.82E+04	1.31E+05	2.40E+04	1.12E+05	2.00E+04	9.39E+04
1.50	2.34E+04	1.08E+05	2.05E+04	9.50E+04	1.77E+04	8.24E+04	1.50E+04	7.01E+04	1.25E+04	5.87E+04
1.60	1.47E+04	6.82E+04	1.29E+04	5.98E+04	1.11E+04	5.17E+04	9.42E+03	4.40E+04	7.85E+03	3.67E+04
1.70	9.28E+03	4.30E+04	8.11E+03	3.76E+04	6.98E+03	3.25E+04	5.91E+03	2.76E+04	4.91E+03	2.30E+04
1.80	5.84E+03	2.70E+04	5.10E+03	2.36E+04	4.39E+03	2.04E+04	3.71E+03	1.73E+04	3.08E+03	1.44E+04
1.90	3.67E+03	1.70E+04	3.21E+03	1.49E+04	2.76E+03	1.28E+04	2.33E+03	1.08E+04	1.93E+03	9.01E+03
2.00	2.31E+03	1.07E+04	2.02E+03	9.35E+03	1.73E+03	8.05E+03	1.46E+03	6.80E+03	1.21E+03	5.64E+03
2.50	2.28E+02	1.06E+03	1.98E+02	9.19E+02	1.69E+02	7.87E+02	1.42E+02	6.61E+02	1.17E+02	5.45E+02
3.00	2.24E+01	1.04E+02	1.94E+01	9.02E+01	1.65E+01	7.69E+01	1.38E+01	6.43E+01	1.13E+01	5.27E+01
3.50	2.20E+00	1.02E+01	1.90E+00	8.84E+00	1.62E+00	7.51E+00	1.34E+00	6.26E+00	1.09E+00	5.10E+00
4.00	2.16E-01	1.00E+00	1.87E-01	8.67E-01	1.58E-01	7.34E-01	1.31E-01	6.09E-01	1.06E-01	4.95E-01
5.00	2.08E-03	9.66E-03	1.79E-03	8.32E-03	1.51E-03	7.01E-03	1.24E-03	5.79E-03	1.00E-03	4.67E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 10.00$ 

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(±E)	J(E)	J(±E)	J(E)	J(±E)	J(E)	J(±E)	J(E)	J(±E)	J(E)
.01	1.59E+07	2.03E+08	1.51E+07	2.41E+08	1.44E+07	2.77E+08	1.38E+07	3.09E+08	1.34E+07	3.47E+08
.02	1.43E+07	1.25E+08	1.33E+07	1.37E+08	1.25E+07	1.48E+08	1.16E+07	1.57E+08	1.11E+07	1.69E+08
.03	1.32E+07	9.73E+07	1.21E+07	1.02E+08	1.12E+07	1.06E+08	1.03E+07	1.09E+08	9.68E+06	1.13E+08
.04	1.23E+07	8.24E+07	1.12E+07	8.39E+07	1.03E+07	8.50E+07	9.36E+06	8.52E+07	8.69E+06	8.65E+07
.05	1.16E+07	7.26E+07	1.04E+07	7.22E+07	9.49E+06	7.17E+07	8.58E+06	7.05E+07	7.92E+06	7.04E+07
.10	8.67E+06	4.74E+07	7.65E+06	4.42E+07	6.80E+06	4.15E+07	6.01E+06	3.87E+07	5.42E+06	3.67E+07
.20	5.15E+06	2.60E+07	4.44E+06	2.32E+07	3.87E+06	2.08E+07	3.34E+06	1.85E+07	2.94E+06	1.68E+07
.30	3.13E+06	1.54E+07	2.67E+06	1.34E+07	2.29E+06	1.18E+07	1.95E+06	1.02E+07	1.69E+06	9.07E+06
.40	1.92E+06	9.32E+06	1.62E+06	8.00E+06	1.38E+06	6.91E+06	1.16E+06	5.93E+06	1.00E+06	5.18E+06
.50	1.18E+06	5.70E+06	9.92E+05	4.94E+06	8.38E+05	4.14E+06	7.03E+05	3.52E+06	5.99E+05	3.04E+06
.60	7.33E+05	3.51E+06	6.11E+05	2.96E+06	5.13E+05	2.51E+06	4.27E+05	2.11E+06	3.62E+05	1.81E+06
.70	4.55E+05	2.17E+06	3.77E+05	1.81E+06	3.15E+05	1.53E+06	2.61E+05	1.28E+06	2.20E+05	1.09E+06
.80	2.82E+05	1.34E+06	2.33E+05	1.12E+06	1.94E+05	9.38E+05	1.60E+05	7.80E+05	1.34E+05	6.61E+05
.90	1.76E+05	8.33E+05	1.45E+05	6.90E+05	1.20E+05	5.77E+05	9.85E+04	4.77E+05	8.23E+04	4.02E+05
1.00	1.09E+05	5.18E+05	8.97E+04	4.27E+05	7.41E+04	3.55E+05	6.07E+04	2.93E+05	5.05E+04	2.46E+05
1.10	6.82E+04	3.22E+05	5.57E+04	2.65E+05	4.59E+04	2.20E+05	3.75E+04	1.80E+05	3.11E+04	1.51E+05
1.20	4.25E+04	2.01E+05	3.47E+04	1.64E+05	2.85E+04	1.36E+05	2.32E+04	1.11E+05	1.92E+04	9.26E+04
1.30	2.65E+04	1.25E+05	2.16E+04	1.02E+05	1.77E+04	8.42E+04	1.44E+04	6.87E+04	1.18E+04	5.70E+04
1.40	1.66E+04	7.80E+04	1.34E+04	6.36E+04	1.10E+04	5.22E+04	8.90E+03	4.25E+04	7.32E+03	3.52E+04
1.50	1.03E+04	4.87E+04	8.37E+03	3.96E+04	6.83E+03	3.24E+04	5.52E+03	2.63E+04	4.53E+03	2.17E+04
1.60	6.47E+03	3.14E+04	5.22E+03	2.46E+04	4.25E+03	2.01E+04	3.43E+03	1.63E+04	2.81E+03	1.34E+04
1.70	4.04E+03	1.90E+04	3.26E+03	1.54E+04	2.65E+03	1.25E+04	2.13E+03	1.01E+04	1.74E+03	8.32E+03
1.80	2.53E+03	1.19E+04	2.03E+03	9.58E+03	1.65E+03	7.80E+03	1.32E+03	6.29E+03	1.08E+03	5.15E+03
1.90	1.58E+03	7.42E+03	1.27E+03	5.97E+03	1.03E+03	4.85E+03	8.23E+02	3.91E+03	6.71E+02	3.20E+03
2.00	9.88E+02	4.64E+03	7.92E+02	3.73E+03	6.40E+02	3.02E+03	5.12E+02	2.47E+03	4.17E+02	1.98E+03
2.50	9.48E+01	4.44E+02	7.55E+01	3.54E+02	6.06E+01	2.85E+02	4.81E+01	2.32E+02	3.89E+01	1.84E+02
3.00	9.13E+01	4.27E+01	7.23E+01	3.39E+01	5.76E+01	2.71E+01	4.55E+01	2.14E+01	3.65E+01	1.72E+01
3.50	8.81E+01	4.12E+01	6.94E+01	3.25E+01	5.51E+01	2.58E+01	4.33E+01	2.04E+01	3.45E+01	1.63E+01
4.00	8.52E+01	3.98E+01	6.68E+01	3.13E+01	5.28E+01	2.47E+01	4.13E+01	1.94E+01	3.28E+01	1.54E+01
5.00	7.99E+01	3.73E+01	6.22E+01	2.91E+01	4.88E+01	2.28E+01	3.79E+01	1.78E+01	2.99E+01	1.40E+01

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$B/B_0 = 10.00$

L.T. = E (MeV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	1.26E+07	3.70E+06	1.19E+07	3.89E+06	1.13E+07	4.11E+06	1.03E+07	4.10E+06	1.02E+07	4.41E+06
.02	1.01E+07	1.72E+06	9.34E+06	1.75E+06	8.69E+06	1.78E+06	7.75E+06	1.72E+06	7.47E+06	1.78E+06
.03	8.75E+06	1.13E+06	7.96E+06	1.12E+06	7.30E+06	1.11E+06	6.42E+06	1.05E+06	6.10E+06	1.07E+06
.04	7.78E+06	8.42E+05	7.00E+06	8.18E+05	6.36E+06	7.98E+05	5.54E+06	7.42E+05	5.21E+06	7.44E+05
.05	7.03E+06	6.74E+05	6.28E+06	6.45E+05	5.66E+06	6.21E+05	4.89E+06	5.70E+05	4.56E+06	5.64E+05
.10	4.69E+06	3.34E+05	4.10E+06	3.06E+05	3.60E+06	2.81E+05	3.04E+06	2.48E+05	2.77E+06	2.35E+05
.20	2.48E+06	1.46E+05	2.12E+06	1.28E+05	1.82E+06	1.13E+05	1.50E+06	9.59E+04	1.33E+06	8.76E+04
.30	1.41E+06	7.72E+04	1.19E+06	6.63E+04	1.00E+06	5.73E+04	8.17E+05	4.75E+04	7.16E+05	4.25E+04
.40	8.25E+05	4.35E+04	6.87E+05	3.63E+04	5.76E+05	3.13E+04	4.64E+05	2.56E+04	4.02E+05	2.26E+04
.50	4.91E+05	2.52E+04	4.05E+05	2.11E+04	3.37E+05	1.78E+04	2.69E+05	1.44E+04	2.32E+05	1.26E+04
.60	2.95E+05	1.49E+04	2.42E+05	1.24E+04	2.00E+05	1.03E+04	1.59E+05	8.31E+03	1.36E+05	7.19E+03
.70	1.78E+05	8.91E+03	1.46E+05	7.35E+03	1.20E+05	6.10E+03	9.45E+04	4.87E+03	8.04E+04	4.18E+03
.80	1.08E+05	5.37E+03	8.60E+04	4.40E+03	7.20E+04	3.63E+03	5.66E+04	2.88E+03	4.79E+04	2.46E+03
.90	6.60E+04	3.25E+03	5.35E+04	2.65E+03	4.35E+04	2.18E+03	3.41E+04	1.72E+03	2.88E+04	1.46E+03
1.00	4.04E+04	1.98E+03	3.26E+04	1.61E+03	2.65E+04	1.31E+03	2.07E+04	1.03E+03	1.74E+04	8.74E+02
1.10	2.48E+04	1.21E+03	1.99E+04	9.78E+02	1.61E+04	7.96E+02	1.25E+04	6.23E+02	1.05E+04	5.26E+02
1.20	1.52E+04	7.40E+02	1.22E+04	5.93E+02	9.85E+03	4.84E+02	7.64E+03	3.78E+02	6.38E+03	3.17E+02
1.30	9.38E+03	4.54E+02	7.51E+03	3.65E+02	6.03E+03	2.95E+02	4.67E+03	2.30E+02	3.89E+03	1.92E+02
1.40	5.79E+03	2.79E+02	4.62E+03	2.24E+02	3.70E+03	1.80E+02	2.86E+03	1.40E+02	2.37E+03	1.17E+02
1.50	3.57E+03	1.72E+02	2.84E+03	1.33E+02	2.27E+03	1.11E+02	1.75E+03	8.56E+01	1.45E+03	7.12E+01
1.60	2.21E+03	1.06E+02	1.75E+03	8.47E+01	1.40E+03	6.79E+01	1.08E+03	5.21E+01	8.89E+02	4.35E+01
1.70	1.37E+03	6.55E+01	1.08E+03	5.22E+01	8.62E+02	4.17E+01	6.61E+02	3.21E+01	5.45E+02	2.66E+01
1.80	8.46E+02	4.05E+01	6.69E+02	3.25E+01	5.32E+02	2.57E+01	4.07E+02	1.97E+01	3.35E+02	1.63E+01
1.90	5.24E+02	2.51E+01	4.14E+02	1.99E+01	3.28E+02	1.58E+01	2.51E+02	1.21E+01	2.06E+02	1.00E+01
2.00	3.25E+02	1.55E+01	2.56E+02	1.23E+01	2.03E+02	9.76E+00	1.55E+02	7.47E+00	1.27E+02	6.15E+00
2.50	3.01E+01	1.43E+01	2.35E+01	1.12E+01	1.85E+01	8.33E+00	1.40E+01	6.70E+00	1.14E+01	5.47E+00
3.00	2.81E+00	1.33E+01	2.18E+00	1.04E+01	1.71E+00	8.11E+00	1.28E+00	6.12E+00	1.04E+00	4.96E+00
3.50	2.64E+01	1.25E+00	2.04E+01	9.67E+00	1.59E+01	7.53E+00	1.19E+01	5.64E+00	9.55E+02	4.55E+01
4.00	2.50E+02	1.18E+01	1.92E+02	9.03E+00	1.49E+02	7.03E+02	1.11E+02	5.25E+02	8.87E+03	4.21E+02
5.00	2.26E+04	1.06E+03	1.73E+04	8.13E+04	1.32E+04	6.24E+04	9.78E+05	4.62E+04	7.77E+05	3.67E+04

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

 $B/B_0 = 15.00$ 

L.T. = E(MEV)	0.		1.0		2.0		3.0		4.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	7.93F+06	3.42E+08	9.08E+06	3.30E+08	9.96E+06	2.95E+08	1.13E+07	2.58E+08	1.22E+07	1.93E+08
.02	5.80F+06	1.39E+08	6.96F+06	1.43E+08	7.99E+06	1.37E+08	9.47E+06	1.31E+08	1.08E+07	1.10E+08
.03	4.73E+06	8.27E+07	5.84F+06	8.88F+07	6.89E+06	8.95E+07	8.39E+06	9.02E+07	9.82E+06	8.24E+07
.04	4.04E+06	5.77E+07	5.09E+06	6.40E+07	6.12E+06	6.67E+07	7.60E+06	7.01E+07	9.08E+06	6.77E+07
.05	3.54F+06	4.38E+07	4.52E+06	4.97E+07	5.53E+06	5.33E+07	6.97E+06	5.79E+07	8.45E+06	5.83E+07
.10	2.15F+06	1.83E+07	2.88E+06	2.25E+07	3.68E+06	2.63E+07	4.86E+06	3.15E+07	6.20E+06	3.58E+07
.20	1.03F+06	6.80F+06	1.45E+06	9.05E+06	1.95F+06	1.15E+07	2.69E+06	1.50E+07	3.60E+06	1.88F+07
.30	5.56F+05	3.30E+06	8.01E+05	4.57E+06	1.10E+06	6.06E+06	1.57E+06	8.25E+06	2.16E+06	1.09E+07
.40	3.12F+05	1.75E+06	4.59E+05	2.50F+06	6.45F+05	3.40E+06	9.35F+05	4.78E+06	1.32E+06	6.48E+06
.50	1.80E+05	9.76F+05	2.69E+05	1.42E+06	3.83F+05	1.97E+06	5.64F+05	2.83E+06	8.06E+05	3.93E+06
.60	1.05E+05	5.58E+05	1.59E+05	6.26E+05	2.30F+05	1.17E+06	3.42E+05	1.70E+06	4.96F+05	2.40E+06
.70	6.24E+04	3.24E+05	9.53E+04	4.87E+05	1.39F+05	6.96E+05	2.09E+05	1.03F+06	3.06E+05	1.47E+06
.80	3.72F+04	1.91E+05	5.74E+04	2.90F+05	8.44F+04	4.19E+05	1.28F+05	6.25E+05	1.89F+05	9.07E+05
.90	2.23F+04	1.13F+05	3.47E+04	1.74E+05	5.15E+04	2.54E+05	7.67E+04	3.82F+05	1.17E+05	5.60E+05
1.00	1.35F+04	6.78F+04	2.11E+04	1.05F+05	3.15F+04	1.54E+05	4.85E+04	2.35E+05	7.28F+04	3.47E+05
1.10	8.16F+03	4.08E+04	1.29E+04	6.35F+04	1.93F+04	9.42E+04	2.99F+04	1.44E+05	4.53F+04	2.15E+05
1.20	4.95E+03	2.46E+04	7.85E+03	3.86E+04	1.19F+04	5.77E+04	1.85E+04	8.89E+04	2.82E+04	1.34F+05
1.30	3.02F+03	1.49F+04	4.81E+03	2.35E+04	7.31F+03	3.54E+04	1.15E+04	5.49E+04	1.75E+04	8.30E+04
1.40	1.84F+03	9.07E+03	2.95E+03	1.44E+04	4.51F+03	2.18E+04	7.10E+03	3.39E+04	1.09E+04	5.16E+04
1.50	1.13F+03	5.53F+03	1.81E+03	8.81E+03	2.78E+03	1.38E+04	4.40F+03	2.10E+04	6.80E+03	3.21F+04
1.60	6.90F+02	3.38F+03	1.12E+03	5.41E+03	1.72F+03	8.26F+03	2.73E+03	1.30E+04	4.24E+03	2.00F+04
1.70	4.23F+02	2.07F+03	6.87E+02	3.32E+03	1.06F+03	5.10F+03	1.70F+03	8.08E+03	2.65E+03	1.25F+04
1.80	2.60E+02	1.27E+03	4.24F+02	2.05E+03	6.58E+02	3.15E+03	1.05E+03	5.01E+03	1.65E+03	7.78E+03
1.90	1.60F+02	7.77E+02	2.62E+02	1.26F+03	4.08E+02	1.95E+03	6.56E+02	3.11E+03	1.03E+03	4.86E+03
2.00	9.85F+01	4.77F+02	1.62E+02	7.78E+02	2.53F+02	1.21E+03	4.08E+02	1.94E+03	6.44F+02	3.03E+03
2.50	8.84F+00	4.25E+01	1.47E+01	7.04E+01	2.34E+01	1.11E+02	3.81E+01	1.81E+02	6.14E+01	2.88E+02
3.00	8.05F+00	3.45E+00	1.36E+00	6.46F+00	2.18F+00	1.03E+01	3.62E+00	1.71E+01	5.87F+00	2.75E+01
3.50	7.41F+02	3.53F+01	1.26E+01	5.99F+01	2.05F+01	9.69E+01	3.44E+01	1.62E+02	5.64E+01	2.64E+02
4.00	6.88F+03	3.27F+02	1.18E+02	5.60E+02	1.94E+02	9.15E+02	3.26E+02	1.54E+02	5.43E+02	2.54E+02
5.00	6.03F+05	2.85E+04	1.05E+04	4.97F+04	1.75E+04	8.24E+04	3.01E+04	1.41E+03	5.06F+04	2.37E+03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 15.00

L.T. = E (MEV)	5.0		6.0		7.0		8.0		9.0	
	J(*E)	J(F)	J(*E)	J(E)	J(*E)	J(F)	J(*E)	J(E)	J(*E)	J(E)
.01	1.34E+07	1.34E+08	1.47E+07	7.87E+07	1.62E+07	5.10E+07	1.67E+07	2.93E+07	1.66E+07	1.58E+07
.02	1.23E+07	9.04E+07	1.40E+07	6.99E+07	1.56E+07	6.10E+07	1.63E+07	5.22E+07	1.63E+07	4.55E+07
.03	1.15E+07	7.41E+07	1.33E+07	6.49E+07	1.50E+07	6.23E+07	1.58E+07	5.81E+07	1.57E+07	5.38E+07
.04	1.08E+07	6.48E+07	1.27E+07	6.11E+07	1.44E+07	6.15E+07	1.52E+07	5.95E+07	1.52E+07	5.66E+07
.05	1.02E+07	5.83E+07	1.21E+07	5.78E+07	1.38E+07	6.00E+07	1.46E+07	5.93E+07	1.46E+07	5.72E+07
.10	7.77E+06	4.03E+07	9.52E+06	4.49E+07	1.10E+07	4.97E+07	1.18E+07	5.14E+07	1.19E+07	5.09E+07
.20	4.70E+06	2.31E+07	5.95E+06	2.79E+07	7.00E+06	3.20E+07	7.55E+06	3.40E+07	7.66E+06	3.42E+07
.30	2.89E+06	1.40E+07	3.73E+06	1.74E+07	4.42E+06	2.04E+07	4.80E+06	2.19E+07	4.88E+06	2.21E+07
.40	1.79E+06	8.55E+06	2.34E+06	1.09E+07	2.79E+06	1.29E+07	3.04E+06	1.39E+07	3.10E+06	1.41E+07
.50	1.11E+06	5.28E+06	1.46E+06	6.83E+06	1.76E+06	8.13E+06	1.92E+06	8.82E+06	1.96E+06	8.99E+06
.60	6.89E+05	3.27E+06	9.19E+05	4.28E+06	1.11E+06	5.12E+06	1.21E+06	5.58E+06	1.24E+06	5.70E+06
.70	4.29E+05	2.03E+06	5.76E+05	2.69E+06	6.97E+05	3.23E+06	7.65E+05	3.53E+06	7.84E+05	3.61E+06
.80	2.68E+05	1.26E+06	3.62E+05	1.69E+06	4.39E+05	2.03E+06	4.82E+05	2.23E+06	4.95E+05	2.28E+06
.90	1.67E+05	7.87E+05	2.27E+05	1.08E+06	2.76E+05	1.28E+06	3.04E+05	1.40E+06	3.12E+05	1.44E+06
1.00	1.04E+05	4.91E+05	1.42E+05	6.64E+05	1.74E+05	8.05E+05	1.92E+05	8.85E+05	1.97E+05	9.08E+05
1.10	6.52E+04	3.06E+05	8.94E+04	4.16E+05	1.09E+05	5.07E+05	1.21E+05	5.58E+05	1.24E+05	5.73E+05
1.20	4.08E+04	1.91E+05	5.61E+04	2.61E+05	6.87E+04	3.19E+05	7.60E+04	3.51E+05	7.82E+04	3.61E+05
1.30	2.55E+04	1.20E+05	3.52E+04	1.64E+05	4.32E+04	2.00E+05	4.78E+04	2.21E+05	4.93E+04	2.28E+05
1.40	1.59E+04	7.48E+04	2.21E+04	1.03E+05	2.72E+04	1.26E+05	3.01E+04	1.39E+05	3.10E+04	1.43E+05
1.50	9.98E+03	4.68E+04	1.39E+04	6.46E+04	1.71E+04	7.93E+04	1.89E+04	8.77E+04	1.95E+04	9.04E+04
1.60	6.24E+03	2.93E+04	8.71E+03	4.06E+04	1.07E+04	4.98E+04	1.19E+04	5.52E+04	1.23E+04	5.69E+04
1.70	3.91E+03	1.83E+04	5.47E+03	2.55E+04	6.75E+03	3.13E+04	7.50E+03	3.47E+04	7.74E+03	3.58E+04
1.80	2.45E+03	1.15E+04	3.43E+03	1.60E+04	4.24E+03	1.97E+04	4.72E+03	2.19E+04	4.87E+03	2.26E+04
1.90	1.53E+03	7.17E+03	2.16E+03	1.00E+04	2.67E+03	1.24E+04	2.97E+03	1.38E+04	3.07E+03	1.42E+04
2.00	9.60E+02	4.49E+03	1.35E+03	6.30E+03	1.68E+03	7.78E+03	1.87E+03	8.65E+03	1.93E+03	8.94E+03
2.50	9.27E+01	4.33E+02	1.32E+02	6.15E+02	1.64E+02	7.63E+02	1.84E+02	8.52E+02	1.90E+02	8.81E+02
3.00	8.97E+00	4.19E+01	1.29E+01	6.00E+01	1.61E+01	7.48E+01	1.80E+01	8.37E+01	1.87E+01	8.68E+01
3.50	8.69E-01	4.06E+00	1.26E+00	5.86E+00	1.58E+00	7.33E+00	1.77E+00	8.22E+00	1.84E+00	8.53E+00
4.00	8.43E-02	3.93E-01	1.23E-01	5.72E-01	1.54E-01	7.18E-01	1.74E-01	8.07E-01	1.81E-01	8.38E-01
5.00	7.96E-04	3.71E-03	1.17E-03	5.45E-03	1.48E-03	6.88E-03	1.67E-03	7.76E-03	1.74E-03	8.07E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

$$B/B_0 = 15.00$$

L.T. = E (MEV)	10.0		11.0		12.0		13.0		14.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	1.56E+07	1.80E+07	1.46E+07	3.57E+07	1.41E+07	6.54E+07	1.35E+07	9.49E+07	1.29E+07	1.27E+08
.02	1.53E+07	4.43E+07	1.41E+07	5.01E+07	1.34E+07	6.24E+07	1.26E+07	7.39E+07	1.19E+07	8.62E+07
.03	1.48E+07	5.15E+07	1.36E+07	5.33E+07	1.28E+07	5.96E+07	1.19E+07	6.51E+07	1.11E+07	7.09E+07
.04	1.42E+07	5.38E+07	1.31E+07	5.36E+07	1.22E+07	5.69E+07	1.13E+07	5.94E+07	1.04E+07	6.22E+07
.05	1.37E+07	5.41E+07	1.25E+07	5.28E+07	1.17E+07	5.43E+07	1.07E+07	5.51E+07	9.86E+06	5.61E+07
.10	1.11E+07	4.79E+07	1.01E+07	4.47E+07	9.25E+06	4.30E+07	8.38E+06	4.10E+07	7.54E+06	3.90E+07
.20	7.16E+06	3.20E+07	6.43E+06	2.92E+07	5.81E+06	2.70E+07	5.17E+06	2.47E+07	4.57E+06	2.24E+07
.30	4.56E+06	2.07E+07	4.07E+06	1.87E+07	3.65E+06	1.70E+07	3.22E+06	1.52E+07	2.81E+06	1.35E+07
.40	2.89E+06	1.32E+07	2.58E+06	1.18E+07	2.29E+06	1.07E+07	2.01E+06	9.46E+06	1.74E+06	8.31E+06
.50	1.83E+06	8.39E+06	1.63E+06	7.49E+06	1.44E+06	6.69E+06	1.25E+06	5.89E+06	1.08E+06	5.13E+06
.60	1.16E+06	5.32E+06	1.03E+06	4.73E+06	9.04E+05	4.20E+06	7.84E+05	3.68E+06	6.71E+05	3.18E+06
.70	7.31E+05	3.36E+06	6.46E+05	2.98E+06	5.68E+05	2.64E+06	4.91E+05	2.30E+06	4.18E+05	1.98E+06
.80	4.61E+05	2.13E+06	4.07E+05	1.88E+06	3.56E+05	1.66E+06	3.07E+05	1.44E+06	2.61E+05	1.23E+06
.90	2.91E+05	1.34E+06	2.56E+05	1.19E+06	2.24E+05	1.04E+06	1.92E+05	9.00E+05	1.63E+05	7.66E+05
1.00	1.83E+05	8.46E+05	1.61E+05	7.47E+05	1.41E+05	6.54E+05	1.21E+05	5.63E+05	1.02E+05	4.78E+05
1.10	1.16E+05	5.34E+05	1.02E+05	4.70E+05	8.83E+04	4.11E+05	7.55E+04	3.53E+05	6.35E+04	2.99E+05
1.20	7.28E+04	3.36E+05	6.39E+04	2.96E+05	5.55E+04	2.58E+05	4.73E+04	2.21E+05	3.97E+04	1.86E+05
1.30	4.58E+04	2.12E+05	4.02E+04	1.86E+05	3.48E+04	1.62E+05	2.97E+04	1.39E+05	2.48E+04	1.17E+05
1.40	2.89E+04	1.34E+05	2.53E+04	1.17E+05	2.19E+04	1.02E+05	1.86E+04	8.68E+04	1.55E+04	7.29E+04
1.50	1.82E+04	8.41E+04	1.59E+04	7.37E+04	1.37E+04	6.39E+04	1.17E+04	5.44E+04	9.73E+03	4.56E+04
1.60	1.14E+04	5.30E+04	1.00E+04	4.64E+04	8.63E+03	4.01E+04	7.31E+03	3.41E+04	6.09E+03	2.85E+04
1.70	7.20E+03	3.33E+04	6.29E+03	2.92E+04	5.42E+03	2.52E+04	4.59E+03	2.14E+04	3.81E+03	1.79E+04
1.80	4.53E+03	2.10E+04	3.96E+03	1.84E+04	3.40E+03	1.58E+04	2.88E+03	1.34E+04	2.39E+03	1.12E+04
1.90	2.85E+03	1.32E+04	2.49E+03	1.15E+04	2.14E+03	9.95E+03	1.80E+03	8.42E+03	1.50E+03	7.00E+03
2.00	1.79E+03	8.31E+03	1.56E+03	7.26E+03	1.34E+03	6.25E+03	1.13E+03	5.28E+03	9.37E+02	4.38E+03
2.50	1.77E+02	8.20E+02	1.54E+02	7.13E+02	1.31E+02	6.10E+02	1.10E+02	5.13E+02	9.05E+01	4.23E+02
3.00	1.74E+01	8.06E+01	1.51E+01	7.00E+01	1.28E+01	5.97E+01	1.07E+01	4.99E+01	8.76E+00	4.09E+01
3.50	1.71E+00	7.93E+00	1.48E+00	6.86E+00	1.25E+00	5.83E+00	1.04E+00	4.86E+00	8.49E+01	3.96E+00
4.00	1.68E-01	7.78E-01	1.45E-01	6.73E-01	1.22E-01	5.70E-01	1.02E-01	4.73E-01	8.24E-02	3.84E-01
5.00	1.61E-03	7.50E-03	1.39E-03	6.46E-03	1.17E-03	5.44E-03	9.65E-04	4.49E-03	7.78E-04	3.63E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 15.00

L.T. = E (MEV)	15.0		16.0		17.0		18.0		19.0	
	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)	J(*E)	J(F)
.01	1.23E+07	1.57E+08	1.17E+07	1.87E+08	1.12E+07	2.15E+08	1.07E+07	2.40E+08	1.04E+07	2.69E+08
.02	1.11E+07	9.68E+07	1.03E+07	1.06E+08	9.68E+06	1.15E+08	9.02E+06	1.22E+08	8.58E+06	1.31E+08
.03	1.03E+07	7.55E+07	9.42E+06	7.93E+07	8.71E+06	8.26E+07	8.01E+06	8.48E+07	7.51E+06	8.81E+07
.04	9.58E+06	6.40E+07	8.71E+06	6.51E+07	7.97E+06	6.60E+07	7.26E+06	6.61E+07	6.75E+06	6.72E+07
.05	8.98E+06	5.43E+07	8.10E+06	5.60E+07	7.37E+06	5.56E+07	6.66E+06	5.47E+07	6.14E+06	5.46E+07
.10	6.73E+06	3.68E+07	5.94E+06	3.43E+07	5.28E+06	3.22E+07	4.67E+06	3.00E+07	4.20E+06	2.85E+07
.20	4.00E+06	2.02E+07	3.45E+06	1.80E+07	3.00E+06	1.61E+07	2.59E+06	1.44E+07	2.28E+06	1.30E+07
.30	2.43E+06	1.20E+07	2.07E+06	1.04E+07	1.78E+06	9.12E+06	1.51E+06	7.94E+06	1.31E+06	7.04E+06
.40	1.49E+06	7.23E+06	1.26E+06	6.21E+06	1.07E+06	5.37E+06	9.03E+05	4.60E+06	7.76E+05	4.02E+06
.50	9.19E+05	4.42E+06	7.70E+05	3.76E+06	6.51E+05	3.22E+06	5.45E+05	2.73E+06	4.65E+05	2.36E+06
.60	5.69E+05	2.72E+06	4.74E+05	2.29E+06	3.98E+05	1.95E+06	3.32E+05	1.64E+06	2.81E+05	1.41E+06
.70	3.53E+05	1.68E+06	2.93E+05	1.41E+06	2.44E+05	1.19E+06	2.03E+05	9.94E+05	1.71E+05	8.46E+05
.80	2.19E+05	1.04E+06	1.81E+05	8.67E+05	1.51E+05	7.28E+05	1.24E+05	6.06E+05	1.04E+05	5.13E+05
.90	1.36E+05	6.47E+05	1.12E+05	5.36E+05	9.30E+04	4.47E+05	7.64E+04	3.71E+05	6.39E+04	3.12E+05
1.00	8.49E+04	4.02E+05	6.96E+04	3.32E+05	5.75E+04	2.76E+05	4.71E+04	2.27E+05	3.92E+04	1.91E+05
1.10	5.29E+04	2.50E+05	4.33E+04	2.06E+05	3.56E+04	1.70E+05	2.91E+04	1.40E+05	2.41E+04	1.17E+05
1.20	3.30E+04	1.56E+05	2.69E+04	1.28E+05	2.21E+04	1.05E+05	1.80E+04	8.63E+04	1.49E+04	7.19E+04
1.30	2.06E+04	9.71E+04	1.67E+04	7.93E+04	1.37E+04	6.53E+04	1.11E+04	5.33E+04	9.19E+03	4.43E+04
1.40	1.29E+04	6.06E+04	1.04E+04	4.93E+04	8.52E+03	4.05E+04	6.90E+03	3.30E+04	5.68E+03	2.73E+04
1.50	8.03E+03	3.78E+04	6.50E+03	3.07E+04	5.30E+03	2.52E+04	4.28E+03	2.04E+04	3.52E+03	1.69E+04
1.60	5.02E+03	2.36E+04	4.05E+03	1.91E+04	3.30E+03	1.56E+04	2.66E+03	1.27E+04	2.18E+03	1.04E+04
1.70	3.14E+03	1.47E+04	2.53E+03	1.19E+04	2.05E+03	9.72E+03	1.65E+03	7.86E+03	1.35E+03	6.45E+03
1.80	1.96E+03	9.21E+03	1.58E+03	7.43E+03	1.28E+03	6.05E+03	1.03E+03	4.86E+03	8.39E+02	4.00E+03
1.90	1.23E+03	5.76E+03	9.84E+02	4.64E+03	7.97E+02	3.77E+03	6.39E+02	3.03E+03	2.21E+02	2.48E+03
2.00	7.67E+02	3.60E+03	6.15E+02	2.89E+03	4.97E+02	2.35E+03	3.98E+02	1.89E+03	3.23E+02	1.54E+03
2.50	7.36E+01	3.45E+02	5.86E+01	2.75E+02	4.70E+01	2.21E+02	3.74E+01	1.76E+02	3.02E+01	1.43E+02
3.00	7.09E+00	3.32E+01	5.61E+00	2.63E+01	4.47E+00	2.10E+01	3.53E+00	1.66E+01	2.84E+00	1.34E+01
3.50	6.84E+01	3.20E+00	5.39E+01	2.52E+00	4.28E+01	2.01E+00	3.36E+01	1.58E+00	2.68E+01	1.26E+00
4.00	6.61E+02	3.09E-01	5.18E+02	2.43E-01	4.10E+02	1.92E-01	3.21E+02	1.51E-01	2.55E+02	1.20E-01
5.00	6.20E-04	2.90E-03	4.83E-04	2.26E-03	3.79E-04	1.77E-03	2.94E-04	1.38E-03	2.32E-04	1.09E-03

Table 3 (Continued)

Synchronous Environment AE3, L = 6.6.

B/B<sub>0</sub> = 15.00

L.T. = E (MEV)	20.0		21.0		22.0		23.0		24.0	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	9.78E+06	2.87E+08	9.23E+06	3.02E+08	8.79E+06	3.19E+08	8.03E+06	3.18E+08	7.93E+06	3.42E+08
.02	7.86E+06	1.34E+08	7.25E+06	1.36E+08	6.74E+06	1.38E+08	6.01E+06	1.33E+08	5.80E+06	1.39E+08
.03	6.79E+06	8.75E+07	6.17E+06	8.66E+07	5.66E+06	8.60E+07	4.98E+06	8.13E+07	4.73E+06	8.27E+07
.04	6.04E+06	6.54E+07	5.44E+06	6.35E+07	4.94E+06	6.19E+07	4.30E+06	5.76E+07	4.04E+06	5.77E+07
.05	5.45E+06	5.23E+07	4.87E+06	5.01E+07	4.39E+06	4.82E+07	3.80E+06	4.42E+07	3.54E+06	4.38E+07
.10	3.64E+06	2.59E+07	3.18E+06	2.37E+07	2.80E+06	2.18E+07	2.36E+06	1.92E+07	2.15E+06	1.83E+07
.20	1.93E+06	1.13E+07	1.64E+06	9.95E+06	1.41E+06	8.79E+06	1.16E+06	7.44E+06	1.03E+06	6.80E+06
.30	1.10E+06	6.00E+06	9.21E+05	5.15E+06	7.79E+05	4.44E+06	6.34E+05	3.69E+06	5.56E+05	3.30E+06
.40	6.41E+05	3.38E+06	5.34E+05	2.86E+06	4.47E+05	2.43E+06	3.60E+05	1.99E+06	3.12E+05	1.75E+06
.50	3.81E+05	1.96E+06	3.15E+05	1.64E+06	2.62E+05	1.38E+06	2.09E+05	1.12E+06	1.80E+05	9.76E+05
.60	2.29E+05	1.16E+06	1.88E+05	9.61E+05	1.55E+05	8.03E+05	1.23E+05	6.45E+05	1.05E+05	5.58E+05
.70	1.38E+05	6.92E+05	1.13E+05	5.71E+05	9.28E+04	4.73E+05	7.33E+04	3.78E+05	6.24E+04	3.24E+05
.80	8.40E+04	4.17E+05	6.83E+04	3.42E+05	5.59E+04	2.82E+05	4.39E+04	2.24E+05	3.72E+04	1.91E+05
.90	5.12E+04	2.52E+05	4.15E+04	2.06E+05	3.38E+04	1.69E+05	2.65E+04	1.33E+05	2.23E+04	1.13E+05
1.00	3.14E+04	1.54E+05	2.53E+04	1.25E+05	2.05E+04	1.02E+05	1.60E+04	8.02E+04	1.35E+04	6.78E+04
1.10	1.92E+04	9.38E+04	1.55E+04	7.59E+04	1.25E+04	6.18E+04	9.74E+03	4.84E+04	8.16E+03	4.08E+04
1.20	1.18E+04	5.74E+04	9.49E+03	4.63E+04	7.65E+03	3.76E+04	5.93E+03	2.93E+04	4.95E+03	2.46E+04
1.30	7.28E+03	3.53E+04	5.83E+03	2.84E+04	4.68E+03	2.29E+04	3.62E+03	1.78E+04	3.02E+03	1.49E+04
1.40	4.49E+03	2.17E+04	3.58E+03	1.74E+04	2.87E+03	1.40E+04	2.22E+03	1.09E+04	1.84E+03	9.07E+03
1.50	2.77E+03	1.34E+04	2.21E+03	1.07E+04	1.77E+03	8.58E+03	1.36E+03	6.64E+03	1.13E+03	5.53E+03
1.60	1.71E+03	8.24E+03	1.36E+03	6.57E+03	1.09E+03	5.27E+03	8.35E+02	4.06E+03	6.90E+02	3.38E+03
1.70	1.06E+03	5.09E+03	8.41E+02	4.05E+03	6.69E+02	3.24E+03	5.13E+02	2.49E+03	4.23E+02	2.07E+03
1.80	6.57E+02	3.14E+03	5.20E+02	2.50E+03	4.13E+02	1.99E+03	3.16E+02	1.53E+03	2.60E+02	1.27E+03
1.90	4.07E+02	1.95E+03	3.21E+02	1.54E+03	2.55E+02	1.23E+03	1.95E+02	9.42E+02	1.60E+02	7.77E+02
2.00	2.52E+02	1.20E+03	1.99E+02	9.53E+02	1.58E+02	7.57E+02	1.20E+02	5.80E+02	9.85E+01	4.77E+02
2.50	2.33E+01	1.11E+02	1.83E+01	8.70E+01	1.43E+01	6.85E+01	1.09E+01	5.20E+01	8.84E+00	4.25E+01
3.00	2.18E+00	1.03E+01	1.70E+00	8.05E+00	1.32E+00	6.29E+00	9.95E+00	4.75E+00	8.05E+00	3.85E+00
3.50	2.05E+01	9.69E+01	1.59E+01	7.51E+01	1.23E+01	5.84E+01	9.22E+00	4.38E+01	7.41E+00	3.53E+01
4.00	1.94E+02	9.14E+02	1.49E+02	7.05E+02	1.15E+02	5.46E+02	8.60E+03	4.07E+02	6.88E+03	3.27E+02
5.00	1.75E+04	8.24E+04	1.34E+04	6.31E+04	1.03E+04	4.84E+04	7.59E+05	3.58E+04	6.03E+05	2.85E+04



Table 4

Synchronous Environment AE3, Averaged Over Local Time, L = 6.6.

B/B0 = E(MEV)	1.00		1.25		1.50		1.75		2.00	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	6.51E+07	9.93E+08	5.66E+07	8.63E+08	5.05E+07	7.70E+08	4.59E+07	7.00E+08	4.22E+07	6.44E+08
.02	5.80E+07	5.44E+08	5.04E+07	4.74E+08	4.50E+07	4.23E+08	4.09E+07	3.84E+08	3.76E+07	3.53E+08
.03	5.33E+07	4.05E+08	4.64E+07	3.53E+08	4.14E+07	3.15E+08	3.76E+07	2.86E+08	3.46E+07	2.63E+08
.04	4.97E+07	3.36E+08	4.32E+07	2.92E+08	3.85E+07	2.60E+08	3.50E+07	2.37E+08	3.22E+07	2.18E+08
.05	4.65E+07	2.92E+08	4.05E+07	2.54E+08	3.61E+07	2.27E+08	3.28E+07	2.06E+08	3.02E+07	1.89E+08
.10	3.50E+07	1.88E+08	3.04E+07	1.63E+08	2.71E+07	1.46E+08	2.47E+07	1.32E+08	2.27E+07	1.22E+08
.20	2.10E+07	1.04E+08	1.82E+07	9.08E+07	1.63E+07	8.08E+07	1.48E+07	7.34E+07	1.36E+07	6.75E+07
.30	1.29E+07	6.23E+07	1.12E+07	5.42E+07	9.97E+06	4.83E+07	9.06E+06	4.39E+07	8.33E+06	4.04E+07
.40	7.94E+06	3.80E+07	6.91E+06	3.31E+07	6.16E+06	2.95E+07	5.60E+06	2.68E+07	5.15E+06	2.47E+07
.50	4.93E+06	2.34E+07	4.29E+06	2.04E+07	3.82E+06	1.82E+07	3.47E+06	1.65E+07	3.20E+06	1.52E+07
.60	3.07E+06	1.45E+07	2.67E+06	1.26E+07	2.38E+06	1.13E+07	2.16E+06	1.02E+07	1.99E+06	9.41E+06
.70	1.91E+06	9.02E+06	1.66E+06	7.85E+06	1.48E+06	7.00E+06	1.35E+06	6.36E+06	1.24E+06	5.85E+06
.80	1.19E+06	5.62E+06	1.04E+06	4.89E+06	9.26E+05	4.36E+06	8.40E+05	3.96E+06	7.73E+05	3.64E+06
.90	7.45E+05	3.50E+06	6.48E+05	3.05E+06	5.78E+05	2.72E+06	5.25E+05	2.47E+06	4.83E+05	2.27E+06
1.00	4.66E+05	2.19E+06	4.05E+05	1.90E+06	3.61E+05	1.70E+06	3.28E+05	1.54E+06	3.02E+05	1.42E+06
1.10	2.91E+05	1.37E+06	2.53E+05	1.19E+06	2.26E+05	1.06E+06	2.05E+05	9.63E+05	1.89E+05	8.86E+05
1.20	1.82E+05	8.54E+05	1.58E+05	7.43E+05	1.41E+05	6.63E+05	1.28E+05	6.02E+05	1.18E+05	5.54E+05
1.30	1.14E+05	5.34E+05	9.91E+04	4.64E+05	8.85E+04	4.14E+05	8.03E+04	3.76E+05	7.39E+04	3.46E+05
1.40	7.14E+04	3.34E+05	6.21E+04	2.91E+05	5.54E+04	2.59E+05	5.03E+04	2.35E+05	4.63E+04	2.17E+05
1.50	4.47E+04	2.09E+05	3.89E+04	1.82E+05	3.47E+04	1.62E+05	3.15E+04	1.47E+05	2.90E+04	1.36E+05
1.60	2.80E+04	1.31E+05	2.44E+04	1.14E+05	2.17E+04	1.02E+05	1.97E+04	9.23E+04	1.82E+04	8.49E+04
1.70	1.75E+04	8.20E+04	1.53E+04	7.13E+04	1.36E+04	6.36E+04	1.24E+04	5.78E+04	1.14E+04	5.32E+04
1.80	1.10E+04	5.14E+04	9.56E+03	4.47E+04	8.53E+03	3.99E+04	7.75E+03	3.62E+04	7.13E+03	3.33E+04
1.90	6.89E+03	3.22E+04	5.99E+03	2.80E+04	5.35E+03	2.50E+04	4.85E+03	2.27E+04	4.47E+03	2.09E+04
2.00	4.32E+03	2.02E+04	3.76E+03	1.75E+04	3.35E+03	1.57E+04	3.04E+03	1.42E+04	2.80E+03	1.31E+04
2.50	4.18E+02	1.95E+03	3.64E+02	1.70E+03	3.25E+02	1.51E+03	2.95E+02	1.38E+03	2.71E+02	1.27E+03
3.00	4.06E+01	1.89E+02	3.53E+01	1.65E+02	3.15E+01	1.47E+02	2.86E+01	1.33E+02	2.63E+01	1.23E+02
3.50	3.95E+00	1.84E+01	3.43E+00	1.60E+01	3.06E+00	1.43E+01	2.78E+00	1.30E+01	2.56E+00	1.19E+01
4.00	3.84E-01	1.79E+00	3.34E-01	1.56E+00	2.98E-01	1.39E+00	2.71E-01	1.26E+00	2.49E-01	1.16E+00
5.00	3.64E-03	1.70E-02	3.17E-03	1.47E-02	2.83E-03	1.32E-02	2.57E-03	1.20E-02	2.36E-03	1.10E-02

Table 4 (Continued)

Synchronous Environment AE3, Averaged Over Local Time, L = 6.6.

E (MEV)	2.50		3.00		5.00		10.00		15.00	
	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)	J(*E)	J(E)
.01	3.67E+07	5.60E+08	3.28E+07	5.00E+08	2.38E+07	3.63E+08	1.54E+07	2.35E+08	1.20E+07	1.83E+08
.02	3.27E+07	3.07E+08	2.92E+07	2.74E+08	2.12E+07	1.99E+08	1.37E+07	1.29E+08	1.07E+07	1.00E+08
.03	3.01E+07	2.29E+08	2.68E+07	2.04E+08	1.95E+07	1.48E+08	1.26E+07	9.61E+07	9.82E+06	7.46E+07
.04	2.80E+07	1.89E+08	2.50E+07	1.69E+08	1.82E+07	1.23E+08	1.18E+07	7.96E+07	9.14E+06	6.18E+07
.05	2.62E+07	1.65E+08	2.34E+07	1.47E+08	1.70E+07	1.07E+08	1.10E+07	6.92E+07	8.56E+06	5.37E+07
.10	1.97E+07	1.06E+08	1.76E+07	9.45E+07	1.28E+07	6.87E+07	8.29E+06	4.45E+07	6.44E+06	3.46E+07
.20	1.18E+07	5.87E+07	1.06E+07	5.24E+07	7.67E+06	3.81E+07	4.97E+06	2.47E+07	3.84E+06	1.92E+07
.30	7.25E+06	3.51E+07	6.47E+06	3.13E+07	4.70E+06	2.28E+07	3.05E+06	1.48E+07	2.37E+06	1.15E+07
.40	4.48E+06	2.14E+07	4.00E+06	1.91E+07	2.90E+06	1.39E+07	1.88E+06	9.02E+06	1.46E+06	7.00E+06
.50	2.78E+06	1.32E+07	2.48E+06	1.18E+07	1.80E+06	8.57E+06	1.17E+06	5.56E+06	9.07E+05	4.31E+06
.60	1.73E+06	8.19E+06	1.54E+06	7.31E+06	1.12E+06	5.31E+06	7.27E+05	3.44E+06	5.64E+05	2.67E+06
.70	1.08E+06	5.09E+06	9.62E+05	4.54E+06	6.99E+05	3.30E+06	4.53E+05	2.14E+06	3.52E+05	1.66E+06
.80	6.73E+05	3.17E+06	6.00E+05	2.83E+06	4.36E+05	2.05E+06	2.83E+05	1.33E+06	2.19E+05	1.03E+06
.90	4.20E+05	1.98E+06	3.75E+05	1.76E+06	2.72E+05	1.28E+06	1.77E+05	8.31E+05	1.37E+05	6.45E+05
1.00	2.63E+05	1.23E+06	2.34E+05	1.10E+06	1.70E+05	8.00E+05	1.10E+05	5.18E+05	8.57E+04	4.02E+05
1.10	1.64E+05	7.70E+05	1.46E+05	6.87E+05	1.06E+05	4.99E+05	6.90E+04	3.24E+05	5.36E+04	2.51E+05
1.20	1.03E+05	4.82E+05	9.17E+04	4.30E+05	6.66E+04	3.12E+05	4.32E+04	2.02E+05	3.35E+04	1.57E+05
1.30	6.43E+04	3.01E+05	5.74E+04	2.69E+05	4.17E+04	1.95E+05	2.70E+04	1.27E+05	2.10E+04	9.83E+04
1.40	4.03E+04	1.88E+05	3.59E+04	1.68E+05	2.61E+04	1.22E+05	1.69E+04	7.92E+04	1.31E+04	6.15E+04
1.50	2.52E+04	1.18E+05	2.25E+04	1.05E+05	1.63E+04	7.65E+04	1.06E+04	4.96E+04	8.23E+03	3.85E+04
1.60	1.58E+04	7.38E+04	1.41E+04	6.59E+04	1.02E+04	4.79E+04	6.64E+03	3.10E+04	5.15E+03	2.41E+04
1.70	9.89E+03	4.62E+04	8.03E+03	4.13E+04	6.41E+03	3.00E+04	4.16E+03	1.94E+04	3.23E+03	1.51E+04
1.80	6.20E+03	2.90E+04	5.53E+03	2.58E+04	4.02E+03	1.88E+04	2.61E+03	1.22E+04	2.02E+03	9.45E+03
1.90	3.88E+03	1.81E+04	3.47E+03	1.62E+04	2.52E+03	1.88E+04	1.63E+03	7.63E+03	1.27E+03	5.92E+03
2.00	2.43E+03	1.14E+04	2.17E+03	1.01E+04	1.58E+03	7.37E+03	1.02E+03	4.77E+03	7.95E+02	3.71E+03
2.50	2.36E+02	1.10E+03	2.11E+02	9.82E+02	1.53E+02	7.14E+02	9.92E+01	4.63E+02	7.70E+01	3.59E+02
3.00	2.29E+01	1.07E+02	2.04E+01	9.53E+01	1.49E+01	6.93E+01	9.63E+00	4.49E+01	7.47E+00	3.49E+01
3.50	2.23E+00	1.04E+01	1.99E+00	9.26E+00	1.44E+00	6.73E+00	9.36E-01	4.36E+00	7.26E-01	3.39E+00
4.00	2.17E-01	1.01E+00	1.93E-01	9.00E-01	1.40E-01	6.54E-01	9.11E-02	4.24E-01	7.07E-02	3.29E-01
5.00	2.05E-03	9.56E-03	1.83E-03	8.53E-03	1.33E-03	6.20E-03	8.63E-04	4.02E-03	6.70E-04	3.12E-03



Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30
MEAN FLUX	2.60 E 7	2.47 E 7	2.33 E 7	2.21 E 7	2.10 E 7	2.00 E 7	1.90 E 7	1.80 E 7	1.71 E 7	1.62 E 7	1.58 E 7	1.49 E 7	1.41 E 7	1.33 E 7	1.29 E 7
MEAN (LOG FLUX)	7.20	7.17	7.14	7.12	7.09	7.06	7.04	7.01	6.98	6.96	6.94	6.91	6.88	6.85	6.84
SIGMA (LOG FLUX)	.43	.43	.44	.44	.45	.45	.46	.46	.47	.47	.47	.48	.48	.48	.49
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
5.00E+08	8.699	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
4.00E+08	8.602	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.00E+08	8.477	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000
2.00E+08	8.301	.005	.004	.004	.004	.003	.003	.003	.002	.002	.002	.002	.002	.001	.001
1.50E+08	8.176	.012	.011	.010	.008	.007	.006	.006	.005	.005	.005	.004	.004	.003	.003
1.00E+08	8.000	.032	.029	.026	.024	.020	.018	.016	.015	.013	.013	.011	.010	.009	.009
7.50E+07	7.875	.059	.054	.048	.044	.037	.034	.031	.028	.025	.024	.022	.020	.017	.017
5.00E+07	7.699	.124	.114	.104	.095	.088	.074	.068	.062	.057	.055	.049	.045	.040	.038
4.00E+07	7.602	.176	.163	.149	.138	.127	.109	.100	.092	.084	.081	.074	.067	.061	.058
3.00E+07	7.477	.261	.244	.225	.209	.194	.168	.156	.144	.133	.129	.118	.108	.099	.095
2.00E+07	7.301	.409	.386	.361	.339	.301	.282	.264	.247	.231	.223	.207	.192	.178	.171
1.50E+07	7.176	.524	.499	.471	.447	.402	.381	.359	.339	.319	.309	.289	.271	.253	.243
1.00E+07	7.000	.681	.656	.629	.603	.556	.532	.508	.485	.462	.450	.426	.404	.382	.369
7.50E+06	6.875	.777	.755	.730	.706	.684	.638	.614	.592	.568	.555	.530	.507	.483	.469
5.00E+06	6.699	.879	.863	.844	.826	.808	.770	.749	.729	.707	.695	.672	.649	.626	.612
4.00E+06	6.602	.919	.906	.891	.876	.861	.829	.811	.793	.774	.763	.741	.721	.699	.685
3.00E+06	6.477	.954	.946	.935	.925	.914	.889	.875	.861	.846	.836	.818	.801	.782	.770
2.00E+06	6.301	.982	.978	.976	.967	.960	.946	.937	.928	.918	.912	.899	.887	.873	.864
1.50E+06	6.176	.992	.989	.986	.983	.979	.970	.964	.958	.951	.947	.938	.929	.919	.913
1.00E+06	6.000	.997	.997	.995	.994	.992	.988	.986	.983	.979	.976	.972	.967	.961	.957
7.50E+05	5.875	.999	.999	.998	.997	.996	.994	.993	.991	.989	.988	.985	.982	.978	.976
5.00E+05	5.699	1.000	1.000	.999	.999	.999	.998	.998	.997	.996	.996	.994	.993	.991	.990
4.00E+05	5.602	1.000	1.000	1.000	1.000	.999	.999	.999	.998	.998	.998	.997	.996	.995	.994
3.00E+05	5.477	1.000	1.000	1.000	1.000	1.000	.999	.999	.999	.999	.999	.999	.998	.998	.997
2.00E+05	5.301	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999



Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)		.62	.64	.66	.68	.70	.72	.74	.76	.78	.80	.82	.84	.86	.88	.90
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
	MEAN FLUX	2.80 E 6	2.55 E 6	2.33 E 6	2.11 E 6	1.91 E 6	1.75 E 6	1.60 E 6	1.45 E 6	1.31 E 6	1.19 E 6	1.10 E 6	1.00 E 5	9.25 E 5	8.20 E 5	7.45 E 5
J1	MEAN (LOG FLUX)	6.08	6.04	5.99	5.94	5.90	5.85	5.81	5.76	5.72	5.67	5.63	5.59	5.55	5.49	5.43
	SIGMA (LOG FLUX)	.56	.57	.57	.57	.58	.58	.58	.59	.59	.59	.60	.60	.60	.60	.61
1.00E+06	8.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
7.50E+07	7.875	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
5.00E+07	7.699	.002	.002	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000
3.00E+07	7.477	.007	.006	.005	.004	.003	.003	.002	.002	.001	.001	.001	.001	.001	.001	.000
2.00E+07	7.301	.015	.013	.011	.009	.008	.006	.005	.004	.004	.003	.003	.002	.002	.001	.001
1.00E+07	7.000	.052	.045	.039	.033	.028	.024	.021	.018	.015	.012	.011	.009	.008	.006	.005
7.50E+06	6.875	.080	.070	.061	.053	.045	.039	.034	.029	.025	.021	.019	.016	.014	.011	.009
5.00E+06	6.699	.137	.121	.108	.094	.082	.073	.064	.056	.048	.041	.037	.032	.028	.023	.020
3.00E+06	6.477	.241	.218	.198	.177	.158	.142	.127	.112	.099	.087	.078	.069	.062	.052	.045
2.00E+06	6.301	.348	.320	.294	.268	.242	.221	.201	.180	.161	.144	.131	.117	.106	.091	.080
1.00E+06	6.000	.558	.526	.495	.462	.429	.401	.374	.344	.315	.289	.269	.245	.227	.201	.182
7.50E+05	5.875	.643	.612	.582	.548	.515	.486	.457	.425	.394	.365	.342	.315	.294	.264	.241
5.00E+05	5.699	.751	.724	.697	.666	.634	.606	.577	.545	.512	.481	.456	.426	.402	.367	.340
3.00E+05	5.477	.858	.838	.817	.793	.767	.742	.717	.688	.658	.628	.603	.573	.548	.511	.481
2.00E+05	5.301	.917	.903	.887	.869	.849	.830	.809	.785	.759	.734	.711	.684	.660	.625	.596
1.00E+05	5.000	.973	.966	.959	.950	.940	.930	.918	.904	.888	.871	.856	.837	.819	.793	.770
7.50E+04	4.875	.984	.980	.975	.969	.962	.954	.946	.935	.923	.910	.898	.883	.869	.847	.827
5.00E+04	4.699	.993	.991	.988	.985	.981	.977	.972	.965	.958	.949	.941	.931	.921	.906	.891
3.00E+04	4.477	.998	.997	.996	.995	.993	.991	.989	.986	.982	.978	.974	.968	.963	.954	.945
2.00E+04	4.301	.999	.999	.998	.998	.997	.996	.995	.994	.992	.990	.987	.984	.981	.976	.971
1.00E+04	4.000	1.000	1.000	1.000	1.000	.999	.999	.999	.999	.999	.999	.998	.996	.995	.993	.991
7.50E+03	3.875	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999	.998	.998	.997	.996	.995
5.00E+03	3.699	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999	.999	.999	.998
3.00E+03	3.477	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999
2.00E+03	3.301	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)	.92	.94	.96	.98	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20
MEAN FLUX	6.90 E 5	6.21 E 5	5.70 E 5	5.15 E 5	4.66 E 5	4.28 E 5	3.90 E 5	3.54 E 5	3.22 E 5	2.91 E 5	2.70 E 5	2.46 E 5	2.21 E 5	2.00 E 5	1.82 E 5
MEAN(LOG FLUX)	5.41	5.36	5.32	5.27	5.23	5.19	5.14	5.10	5.05	5.00	4.97	4.92	4.87	4.83	4.78
SIGMA(LOG FLUX)	.61	.61	.61	.62	.62	.62	.62	.63	.63	.63	.63	.64	.64	.64	.64
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
6.00E+07	7.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+07	7.544	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
2.00E+07	7.301	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1.00E+07	7.000	.005	.004	.003	.002	.002	.001	.001	.001	.001	.001	.001	.000	.000	.000
6.00E+06	6.778	.012	.010	.009	.006	.005	.004	.004	.003	.002	.002	.002	.001	.001	.001
3.50E+06	6.544	.032	.027	.023	.017	.015	.012	.010	.009	.007	.006	.005	.004	.004	.003
2.00E+06	6.301	.072	.062	.055	.041	.037	.032	.027	.024	.020	.018	.015	.013	.011	.009
1.00E+06	6.000	.167	.148	.135	.119	.106	.095	.085	.075	.066	.058	.046	.039	.034	.029
6.00E+05	5.778	.273	.248	.228	.207	.187	.170	.154	.138	.124	.110	.090	.079	.069	.061
3.50E+05	5.544	.413	.383	.358	.330	.304	.282	.260	.238	.217	.196	.165	.147	.132	.119
2.00E+05	5.301	.571	.539	.513	.482	.452	.426	.399	.372	.346	.319	.277	.252	.230	.211
1.00E+05	5.000	.750	.722	.699	.671	.642	.617	.590	.561	.533	.503	.453	.422	.394	.368
6.00E+04	4.778	.850	.830	.811	.788	.765	.744	.720	.694	.668	.640	.591	.560	.531	.504
3.50E+04	4.544	.922	.909	.897	.881	.864	.849	.830	.811	.790	.767	.725	.698	.671	.645
2.00E+04	4.301	.966	.958	.951	.942	.932	.922	.911	.897	.883	.867	.836	.815	.795	.774
1.00E+04	4.000	.990	.987	.984	.980	.976	.972	.966	.960	.953	.944	.927	.915	.902	.889
6.00E+03	3.778	.996	.995	.994	.992	.990	.988	.985	.982	.978	.974	.964	.957	.949	.941
3.50E+03	3.544	.999	.998	.998	.997	.997	.996	.995	.993	.992	.990	.988	.985	.977	.973
2.00E+03	3.301	1.000	1.000	.999	.999	.999	.999	.998	.998	.997	.996	.995	.993	.991	.989
1.00E+03	3.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999	.999	.998	.998	.997
6.00E+02	2.778	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999	.999
3.50E+02	2.544	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.00E+02	2.301	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.00E+02	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.00E+01	1.778	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50
MEAN FLUX	1.69 E 5	1.51 E 5	1.40 E 5	1.28 E 5	1.14 E 5	1.03 E 5	9.60 E 4	8.70 E 4	7.96 E 4	7.14 E 4	6.56 E 4	6.00 E 4	5.40 E 4	4.98 E 4	4.47 E 4
MEAN (LOG FLUX)	4.75	4.70	4.66	4.62	4.57	4.52	4.48	4.44	4.40	4.35	4.31	4.27	4.22	4.18	4.13
SIGMA (LOG FLUX)	.65	.65	.65	.65	.65	.66	.66	.66	.66	.66	.67	.67	.67	.67	.67
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
1.00E+07	7.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
6.00E+06	6.778	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+06	6.544	.003	.002	.002	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000
2.00E+06	6.301	.008	.007	.005	.004	.003	.003	.002	.002	.002	.001	.001	.001	.001	.001
1.00E+06	6.000	.026	.022	.017	.014	.012	.011	.009	.008	.006	.005	.005	.004	.003	.003
6.00E+05	5.778	.055	.047	.038	.032	.027	.025	.021	.018	.015	.014	.012	.010	.009	.007
3.50E+05	5.544	.109	.095	.078	.067	.059	.054	.047	.041	.036	.032	.028	.024	.021	.018
2.00E+05	5.301	.196	.175	.147	.130	.116	.107	.096	.086	.075	.068	.060	.053	.047	.041
1.00E+05	5.000	.348	.320	.279	.253	.231	.217	.197	.181	.163	.149	.136	.121	.111	.098
6.00E+04	4.778	.482	.450	.403	.372	.346	.328	.304	.282	.258	.240	.221	.201	.186	.167
3.50E+04	4.544	.624	.593	.546	.513	.484	.464	.437	.412	.383	.361	.338	.313	.293	.269
2.00E+04	4.301	.756	.729	.687	.657	.630	.610	.583	.558	.528	.504	.479	.450	.428	.400
1.00E+04	4.000	.877	.859	.829	.807	.785	.770	.747	.726	.700	.678	.655	.628	.606	.577
6.00E+03	3.778	.934	.922	.902	.886	.871	.859	.842	.826	.805	.787	.768	.744	.725	.700
3.50E+03	3.544	.969	.963	.951	.941	.931	.924	.913	.902	.887	.875	.861	.843	.828	.808
2.00E+03	3.301	.988	.984	.978	.974	.968	.964	.958	.951	.943	.935	.926	.915	.905	.891
1.00E+03	3.000	.997	.996	.994	.992	.990	.988	.985	.983	.979	.975	.971	.966	.961	.954
6.00E+02	2.778	.999	.998	.998	.997	.996	.995	.994	.993	.991	.989	.987	.984	.982	.978
3.50E+02	2.544	1.000	1.000	.999	.999	.999	.998	.998	.997	.997	.996	.995	.994	.993	.991
2.00E+02	2.301	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.997	.997
1.00E+02	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.999
6.00E+01	1.778	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3.50E+01	1.544	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2.00E+01	1.301	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.00E+01	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00
MEAN FLUX	2.80 E 4	1.75 E 4	1.10 E 4	6.89 E 3	4.32 E 3	2.71 E 3	1.71 E 3	1.07 E 3	6.70 E 2	4.18 E 2	2.65 E 2	1.65 E 2	1.02 E 2	6.50 E 1	4.06 E 1
MEAN (LOG FLUX)	3.91	3.70	3.48	3.27	3.05	2.84	2.63	2.41	2.20	1.98	1.77	1.56	1.34	1.14	.92
SIGMA (LOG FLUX)	.68	.69	.70	.70	.71	.72	.73	.73	.74	.74	.75	.76	.76	.77	.77
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
2.00E+06	6.301	.000	.000	.000	.000	.000	.000	.000	.000	0	0	0	0	0	0
1.00E+06	6.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0
6.00E+05	5.778	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0
3.50E+05	5.544	.008	.004	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
2.00E+05	5.301	.021	.010	.005	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1.00E+05	5.000	.055	.029	.015	.003	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000
6.00E+04	4.778	.102	.058	.031	.018	.003	.002	.001	.000	.000	.000	.000	.000	.000	.000
3.50E+04	4.544	.177	.109	.064	.035	.018	.004	.002	.001	.000	.000	.000	.000	.000	.000
2.00E+04	4.301	.284	.190	.120	.071	.040	.021	.011	.005	.002	.001	.000	.000	.000	.000
1.00E+04	4.000	.449	.330	.229	.149	.091	.053	.029	.015	.007	.003	.002	.001	.000	.000
6.00E+03	3.778	.579	.452	.335	.234	.154	.095	.056	.031	.016	.008	.004	.002	.001	.000
3.50E+03	3.544	.706	.587	.464	.347	.245	.163	.103	.061	.034	.018	.009	.004	.002	.001
2.00E+03	3.301	.816	.717	.602	.480	.363	.260	.176	.112	.068	.038	.021	.011	.005	.002
1.00E+03	3.000	.910	.844	.755	.647	.529	.411	.303	.211	.139	.086	.051	.028	.015	.008
6.00E+02	2.778	.952	.908	.843	.756	.649	.533	.417	.308	.216	.143	.091	.053	.030	.016
3.50E+02	2.544	.978	.953	.911	.847	.762	.658	.545	.428	.320	.225	.153	.096	.057	.033
2.00E+02	2.301	.991	.978	.955	.915	.854	.772	.673	.560	.444	.335	.242	.163	.104	.064
1.00E+02	2.000	.998	.993	.983	.964	.930	.878	.806	.713	.606	.491	.382	.280	.193	.130
6.00E+01	1.778	.999	.997	.993	.983	.963	.930	.879	.807	.715	.608	.498	.386	.283	.201
3.50E+01	1.544	1.000	.999	.997	.993	.983	.964	.932	.882	.812	.722	.621	.508	.395	.297
2.00E+01	1.301	1.000	1.000	.999	.997	.993	.984	.966	.935	.888	.820	.736	.634	.521	.415
1.00E+01	1.000	1.000	1.000	1.000	.999	.998	.995	.987	.973	.948	.907	.849	.770	.673	.570
6.00E+00	.778	1.000	1.000	1.000	.999	.998	.995	.987	.973	.947	.908	.849	.770	.679	.574
3.50E+00	.544	1.000	1.000	1.000	1.000	.999	.998	.995	.987	.973	.949	.910	.852	.780	.688
2.00E+00	.301	1.000	1.000	1.000	1.000	1.000	.999	.998	.995	.988	.975	.952	.914	.862	.789

Table 5 (Continued)

Synchronous Environment AE3, L = 6.6; Averaged Over Local Time at B/B<sub>0</sub> = 1.0 - Cumulative Probabilities.

E (MEV)	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
MEAN FLUX	1.60 E 1	6.38 E 0	2.50 E 0	9.90 E-1	3.84 E-1	1.51 E-1	6.02 E-2	2.41 E-2	9.30 E-3	3.64 E-3	1.42 E-3	5.62 E-4	2.21 E-4	9.10 E-5	3.48 E-5
MEAN (LOG FLUX)	.50	.08	-.34	-.76	-1.19	-1.61	-2.02	-2.43	-2.86	-3.28	-3.70	-4.12	-4.54	-4.93	-5.36
SIGMA (LOG FLUX)	.78	.79	.80	.81	.82	.83	.83	.84	.85	.86	.86	.87	.88	.88	.89
J1	LOG(J1)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)	P(J)
6.00E+03	3.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+03	3.544	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
2.00E+03	3.301	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1.00E+03	3.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
6.00E+02	2.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+02	2.544	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
2.00E+02	2.301	.011	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1.00E+02	2.000	.028	.008	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
6.00E+01	1.778	.051	.016	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+01	1.544	.091	.033	.009	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
2.00E+01	1.301	.153	.062	.020	.005	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
1.00E+01	1.000	.261	.123	.047	.015	.004	.001	.000	.000	.000	.000	.000	.000	.000	.000
6.00E+00	.778	.361	.190	.081	.029	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000
3.50E+00	.544	.477	.280	.135	.054	.017	.005	.001	.000	.000	.000	.000	.000	.000	.000
2.00E+00	.301	.600	.391	.211	.095	.035	.010	.003	.001	.000	.000	.000	.000	.000	.000
1.00E+00	0.	.738	.542	.335	.174	.074	.026	.008	.002	.000	.000	.000	.000	.000	.000
6.00E-01	-.222	.822	.650	.441	.253	.119	.047	.015	.004	.001	.000	.000	.000	.000	.000
3.50E-01	-.456	.889	.752	.557	.354	.186	.082	.030	.009	.002	.000	.000	.000	.000	.000
2.00E-01	-.699	.937	.838	.673	.470	.276	.136	.056	.020	.005	.001	.000	.000	.000	.000
1.00E-01	-1.000	.972	.914	.795	.617	.410	.231	.110	.044	.014	.004	.001	.000	.000	.000
6.00E-02	-1.222	.986	.950	.864	.716	.517	.321	.169	.075	.027	.008	.002	.000	.000	.000
3.50E-02	-1.456	.994	.974	.918	.805	.629	.428	.249	.123	.049	.016	.005	.001	.000	.000
2.00E-02	-1.699	.998	.988	.955	.877	.735	.544	.350	.192	.086	.032	.010	.003	.001	.000
1.00E-02	-2.000	.999	.996	.981	.937	.840	.683	.490	.303	.155	.067	.024	.007	.002	.000
6.00E-03	-2.222	1.000	.998	.991	.965	.897	.772	.595	.401	.226	.108	.043	.014	.004	.001

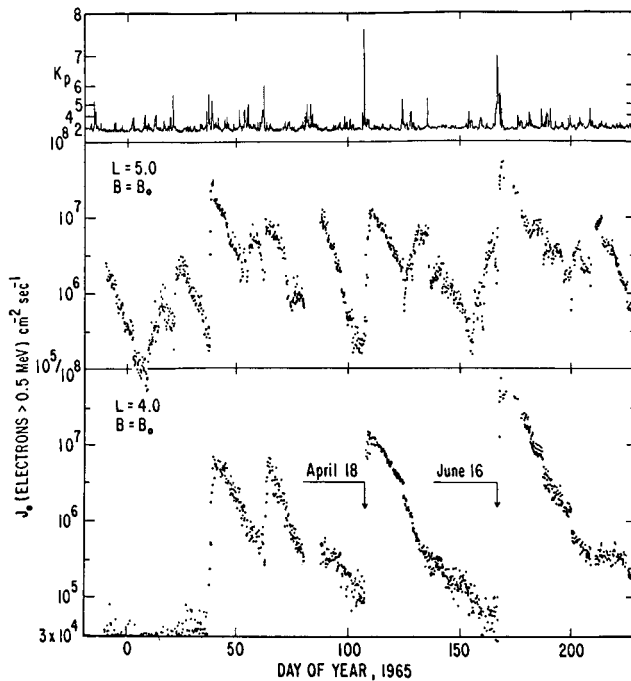


Figure 1—The omnidirectional flux of electrons greater than 0.5 MeV as a function of time in the outer zone. The measurements have been converted to the equatorial values. The three hour magnetic index,  $K_p$ , is at the top of the graph. Intense magnetic storms occurred on April 18 and June 16, 1965 (After McIlwain, Reference 6).

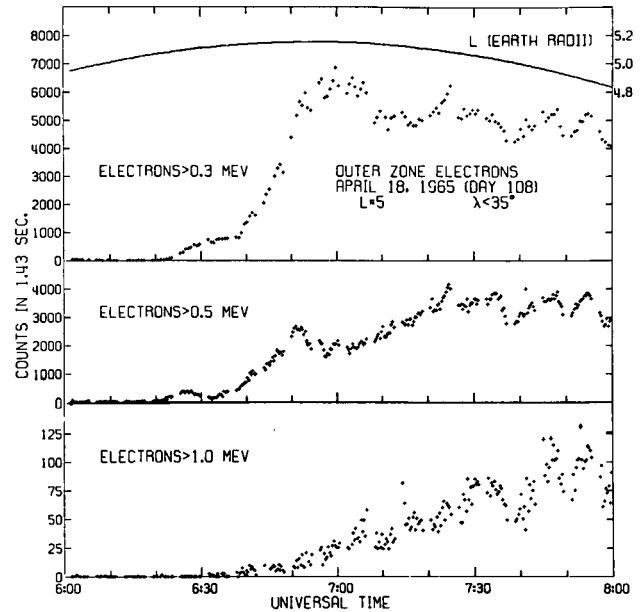


Figure 2—The rapid increase of electron fluxes at  $L \approx 5.0$  following the April 18, 1965 magnetic storm (after Brown and Roberts, Reference 7).

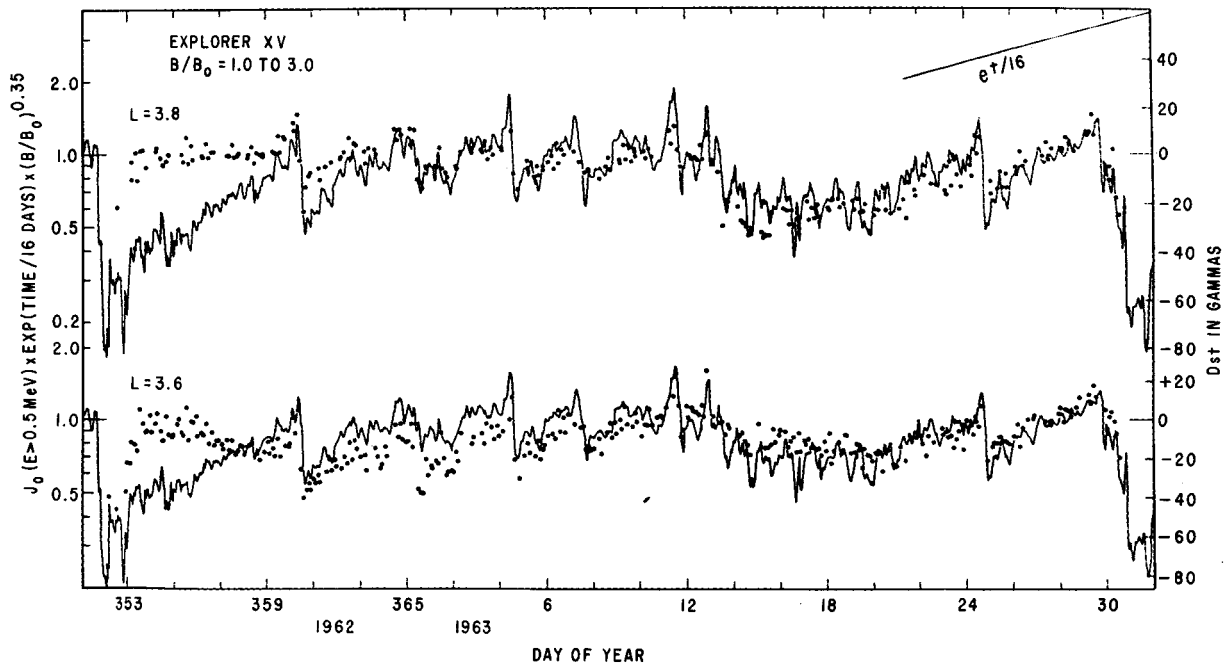


Figure 3—Demonstration that electron fluxes at  $L = 3.6$  and  $3.8$  have a similar time behavior to  $D_{st}$ . The electron fluxes given by the points have been corrected for time decay and  $B/B_0$  variations. The departure of the points from the  $D_{st}$  curve around day 353 are interpreted as nonadiabatic effects (after McIlwain Reference 6).

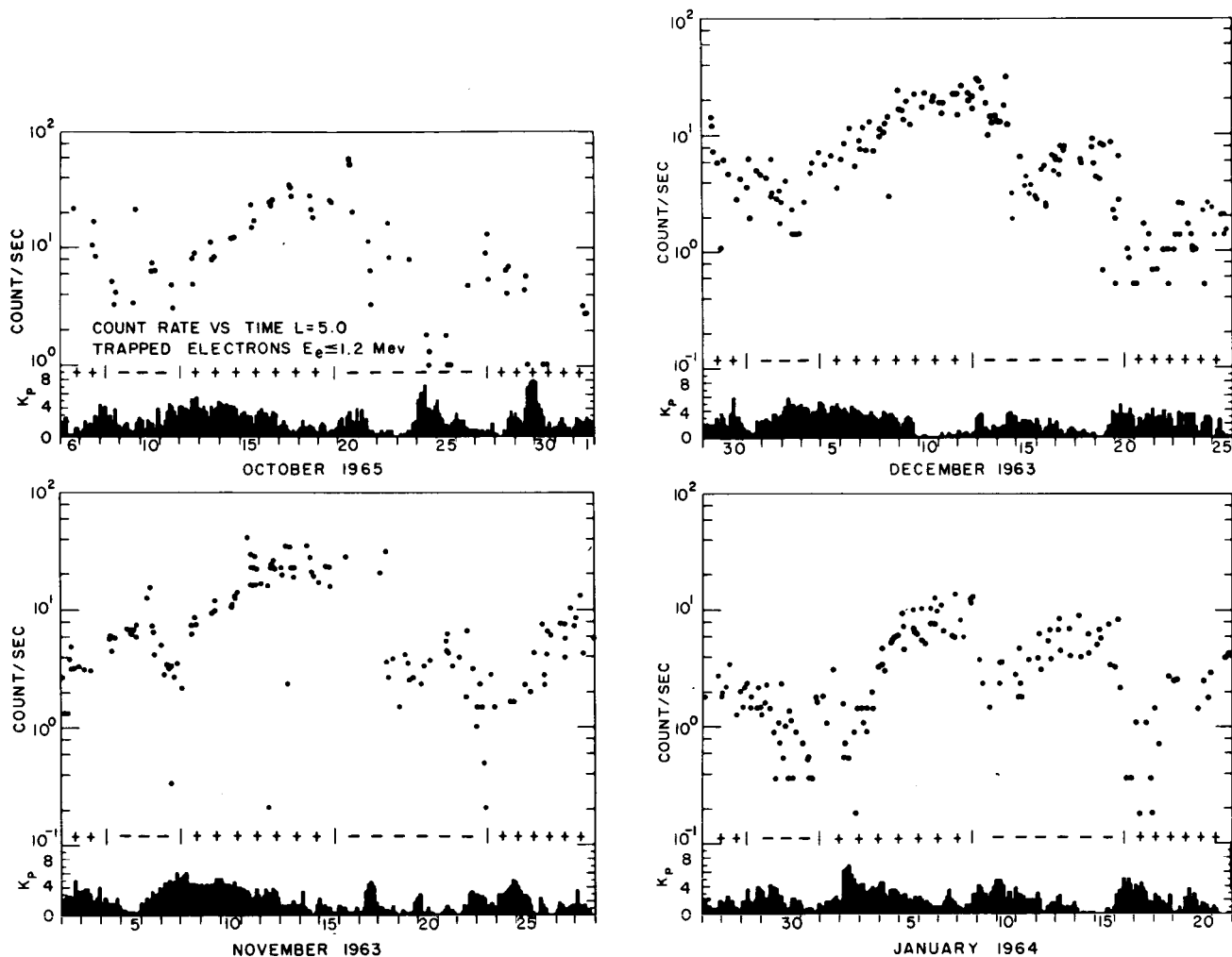


Figure 4—Time variations of outer zone electrons observed at low altitudes which illustrate 27-day periodicity. The interplanetary magnetic sectors denoted by + (field directed away from sun) and - (field directed toward the sun) are given at the bottom of the graphs along with the  $K_p$  index (after Williams Reference 9).

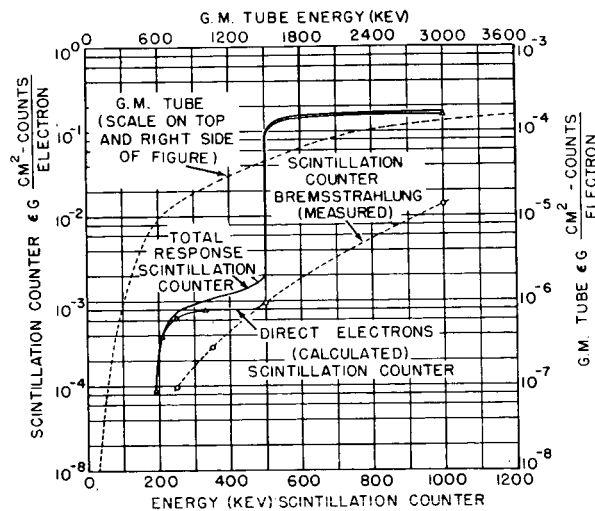


Figure 5—The efficiency versus energy of the Explorer 6 STL scintillation counter (after Rosen Reference 11).

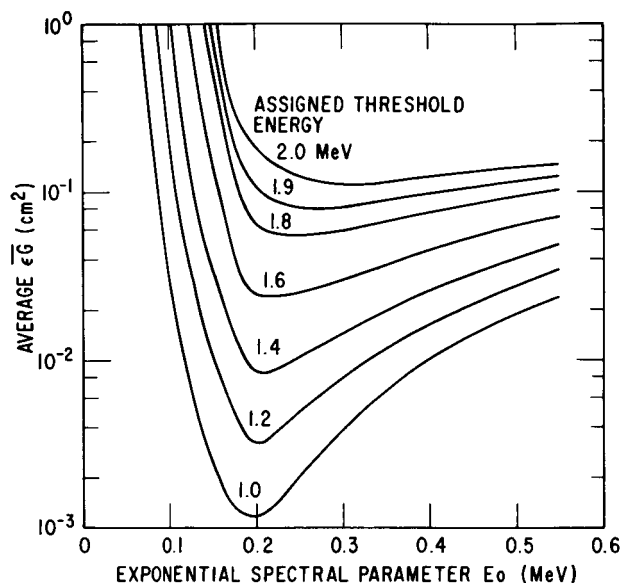


Figure 6—The variations of the conversion factor between omnidirectional flux and counting rate for the 302 Geiger tube used on Explorers 12 and 14. The two quantities  $E_T$ , threshold energy and  $E_0$ , exponential spectral parameter are used in the following way to make the calculation

$$\epsilon G = G e^{-E_T/E_0} \int_0^{\infty} \epsilon(E) e^{-E/E_0} \frac{dE}{E_0}$$

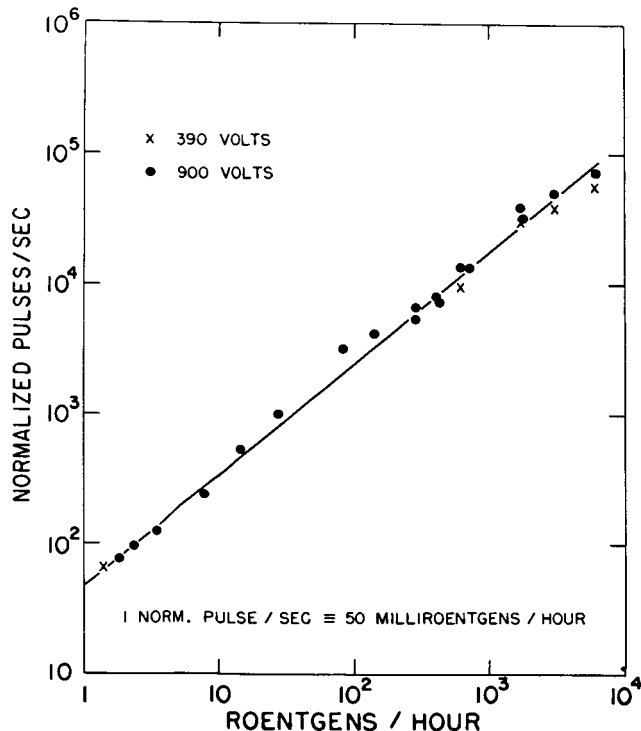


Figure 8—Count rate calibration curve for OGO A ionization chamber supplied by Kane.

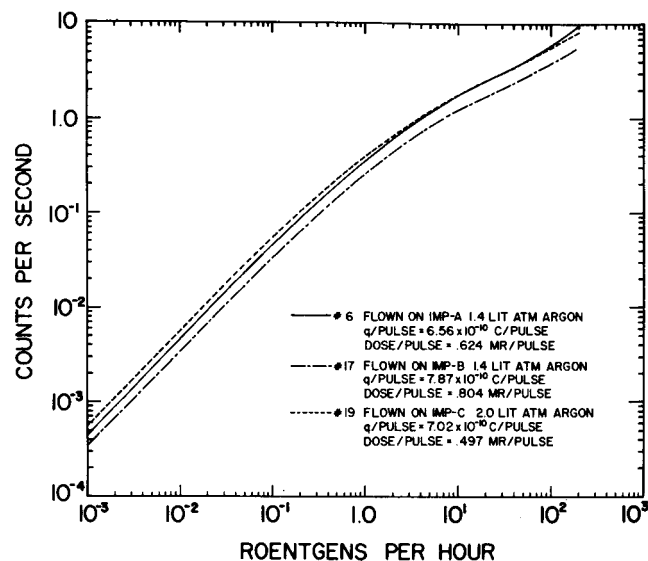


Figure 7—Count rate calibration curve for IMP A ionization chamber supplied by Anderson.

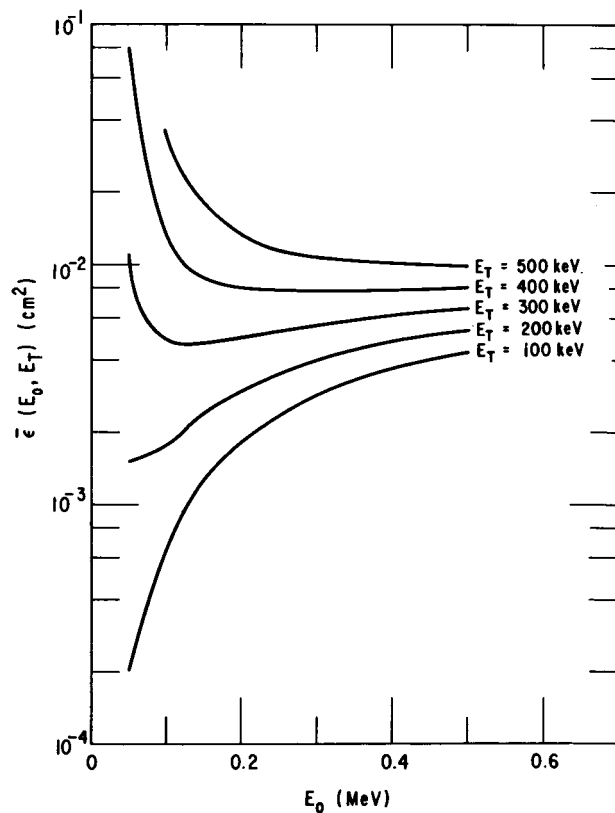


Figure 9—The efficiency of the solid state detector on ERS 17 as a function of  $E_0$ , the exponential spectral parameter and  $E_T$ , the threshold energy.

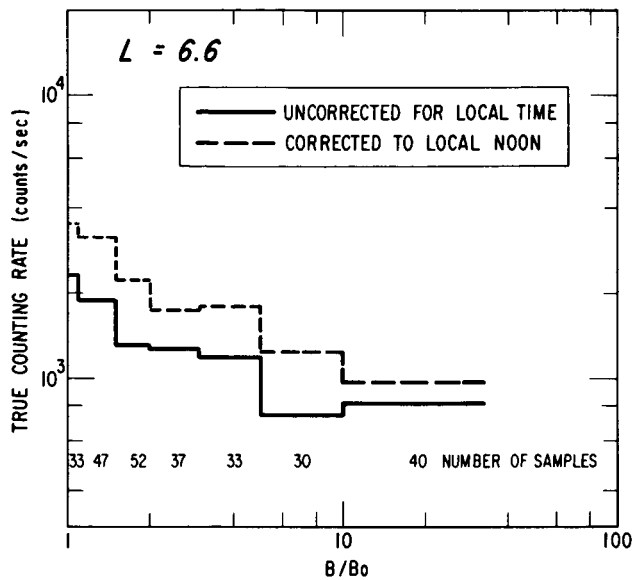


Figure 10— $B/B_0$  variation for 213 A Geiger tube. The number of data points in each interval is given at the bottom of the graph. The procedures used to obtain these curves are explained in the text.

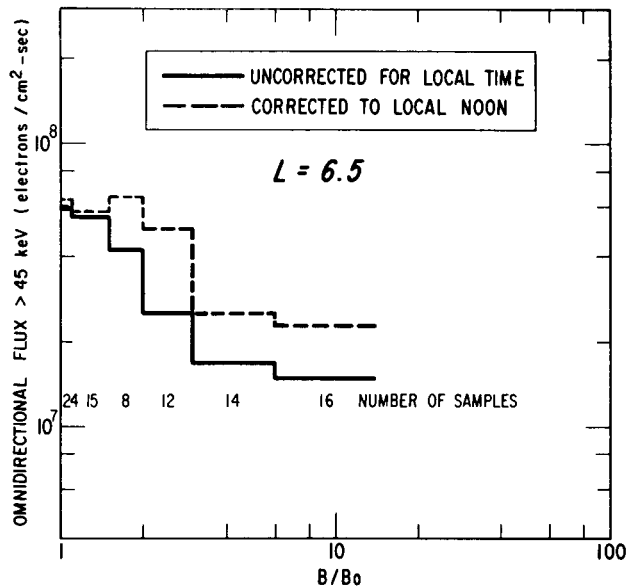


Figure 11— $B/B_0$  variations for Beta counter. See Figure 10 for additional remarks.

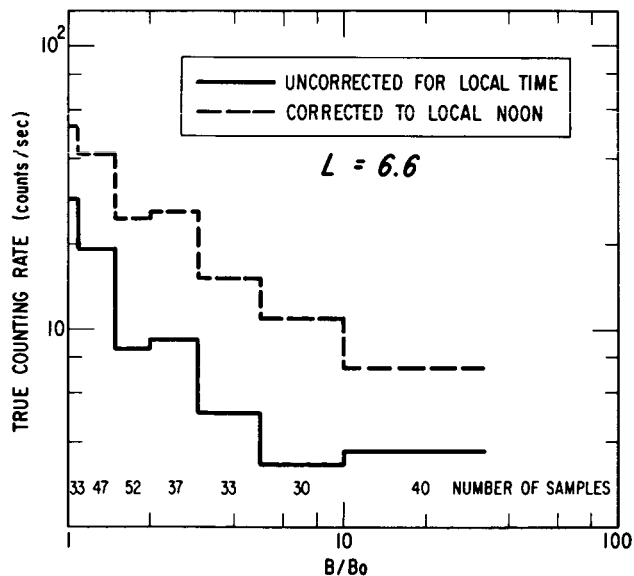


Figure 12— $B/B_0$  variation for 213 B Geiger tube. See Figure 10 for additional remarks.

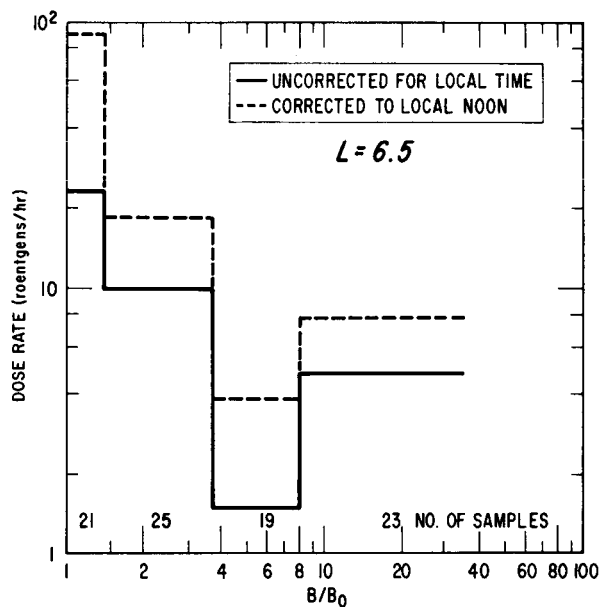


Figure 13— $B/B_0$  variation for OGO ionization chamber. See Figure 10 for additional remarks.

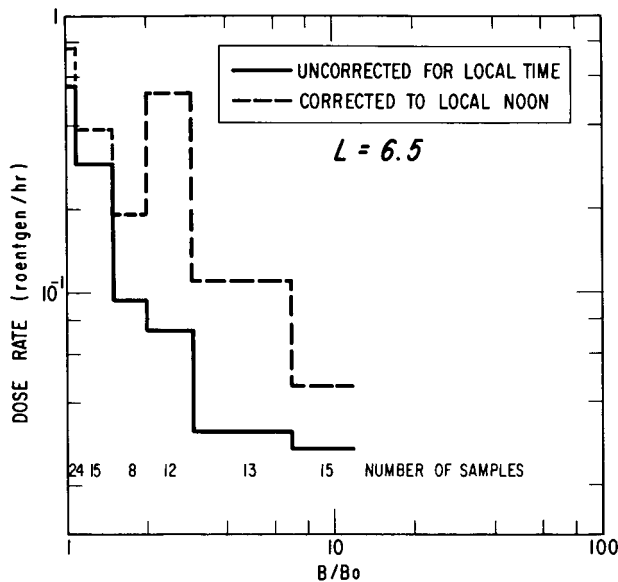


Figure 14— $B/B_0$  variation for Imp ionization chamber. See Figure 10 for additional remarks.

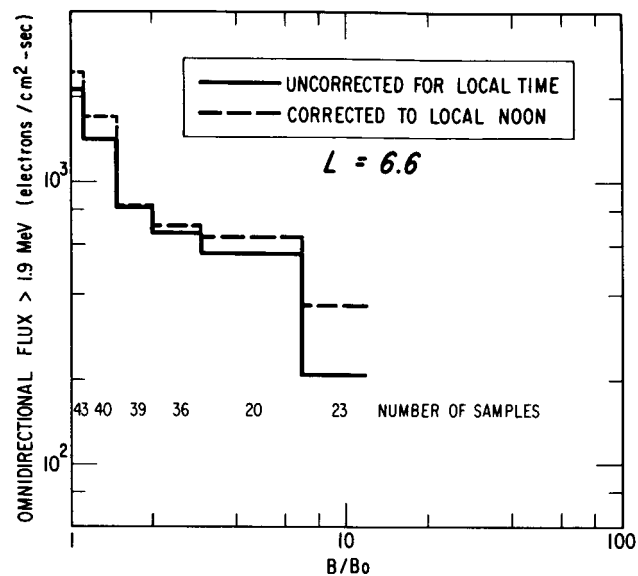


Figure 15— $B/B_0$  variation for Explorer 12 302 Geiger tube. See Figure 10 for additional remarks.

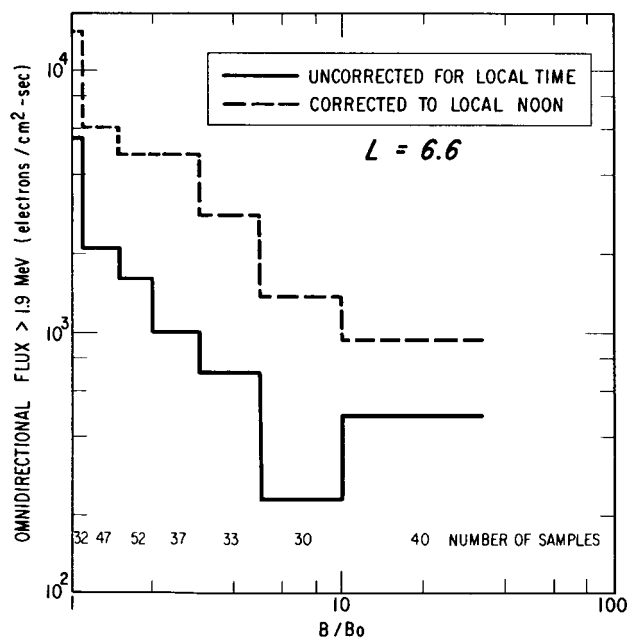


Figure 16— $B/B_0$  variation for Explorer 14 302 Geiger tube. See Figure 10 for additional remarks.

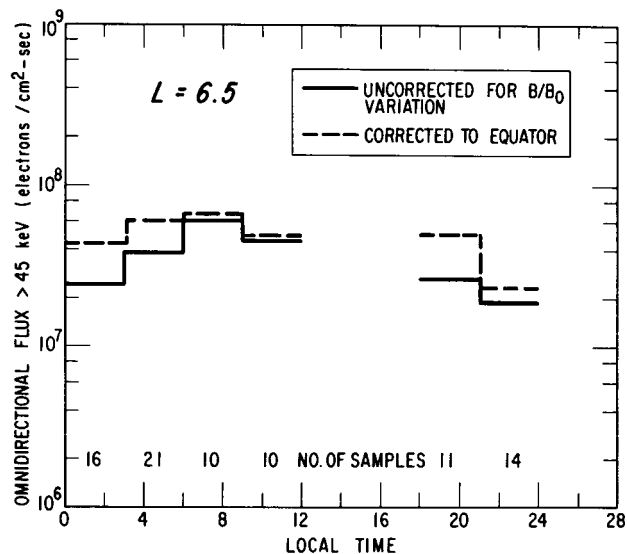


Figure 17—Local time variation for Beta counter. There were not enough points for  $12 < \text{local time} < 18$  hours to obtain good median values. See Figure 10 for additional remarks.

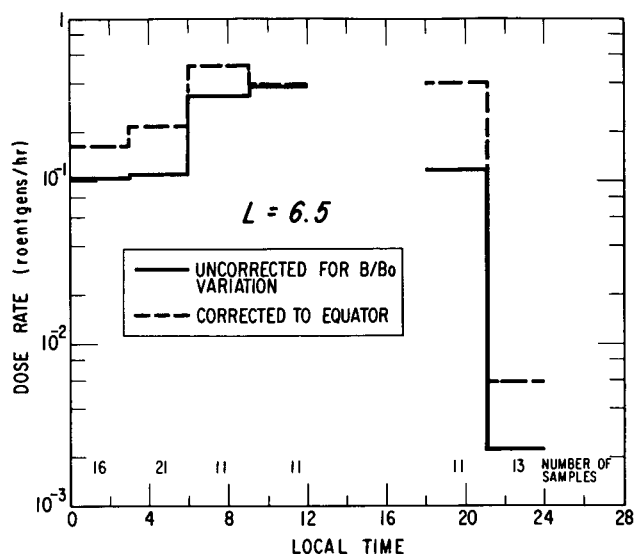


Figure 18—Local time variation for Imp ionization chamber. See Figure 10 for additional remarks.

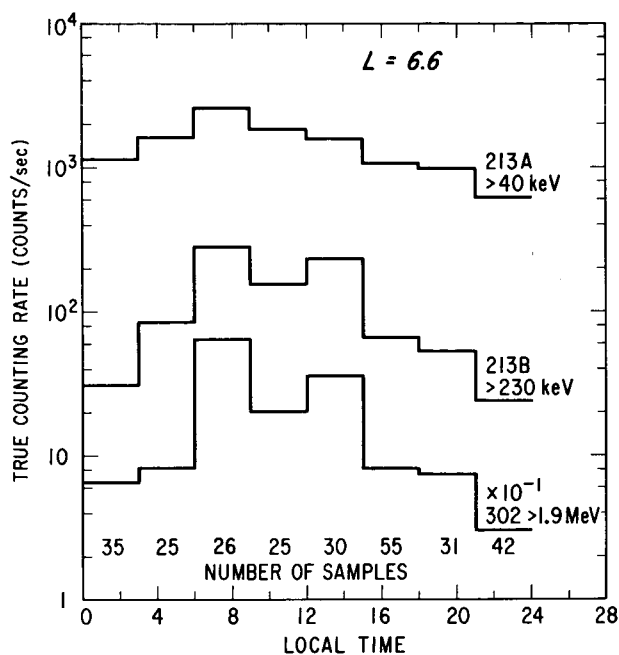


Figure 19—Uncorrected local time variations for Explorer 14 detectors. The 302 curve has been multiplied by 0.1 to prevent confusion with the 213 B curve. See Figure 10 for additional remarks.

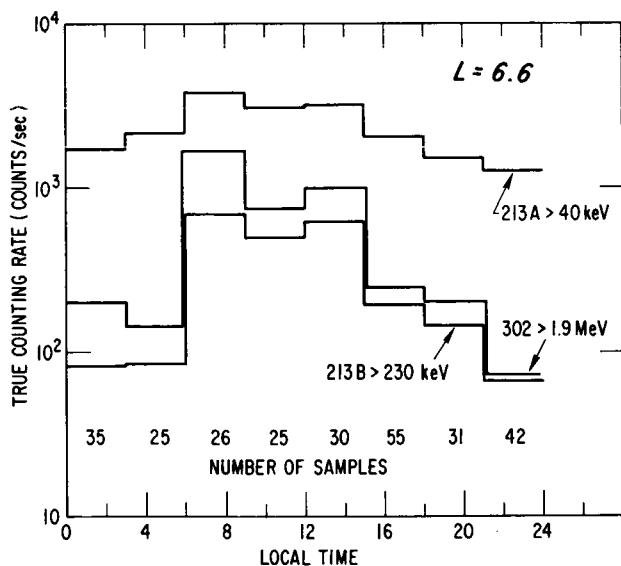


Figure 20—Corrected local time variations for Explorer 14 detectors. See Figure 10 for additional remarks.

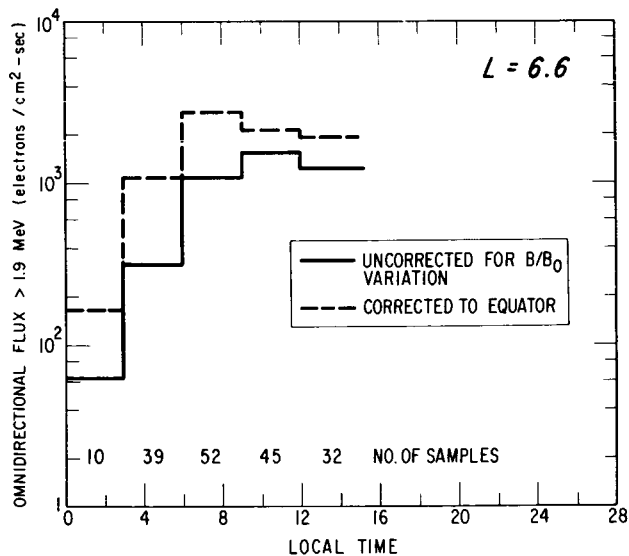


Figure 21—Local time variation for Explorer 12 302 Geiger tube. See Figure 10 for additional remarks.



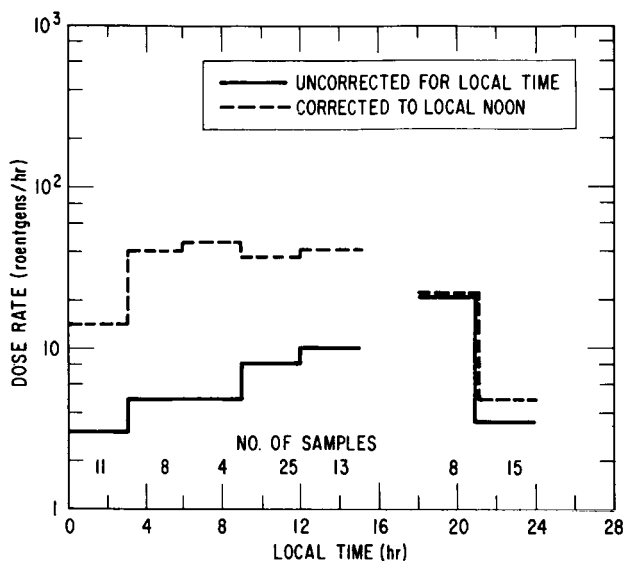


Figure 22—Local time variation for OGO ionization chamber. See Figure 10 for additional remarks.

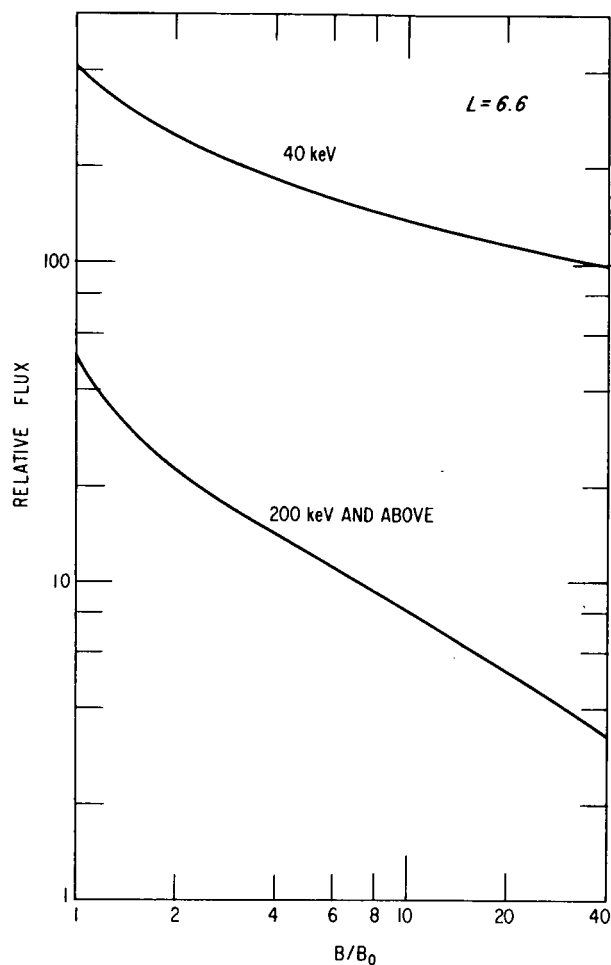


Figure 23—Composite  $B/B_0$  variation derived from all the data.

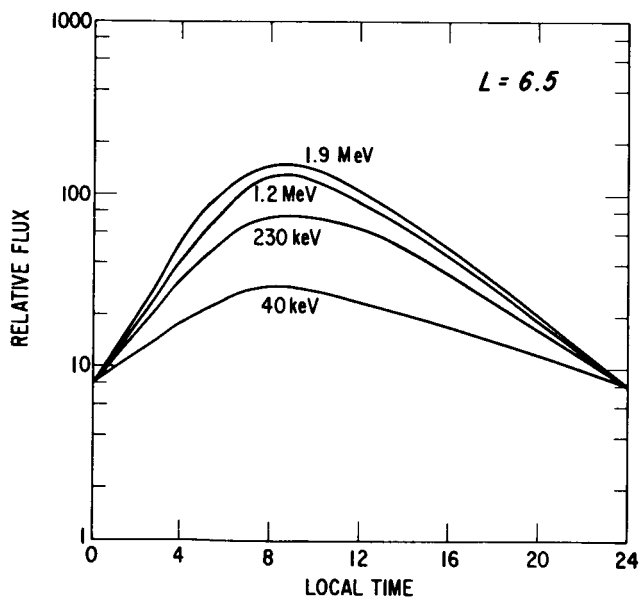


Figure 24—Composite local time variation derived from all the data.

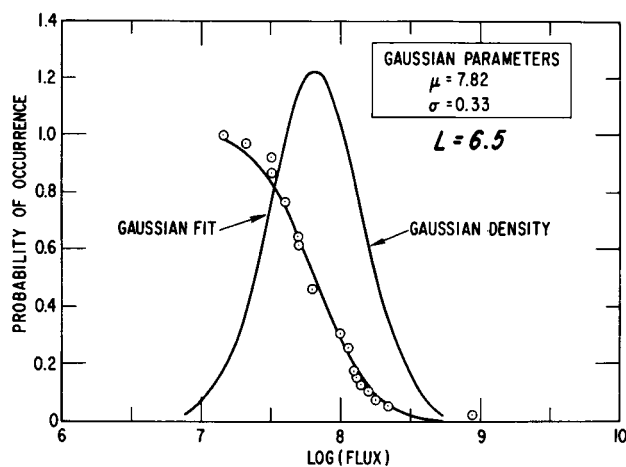


Figure 25—A statistical presentation of the Beta counter data. See text for a description of the curves.

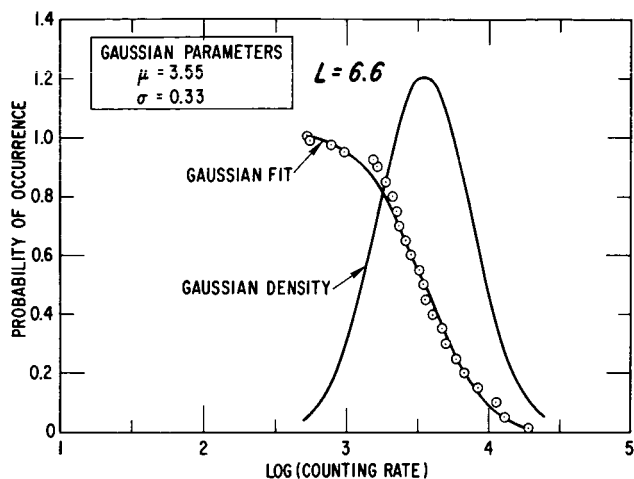


Figure 26—A statistical presentation of the 213 A Geiger tube data. See text for a description of the curves.

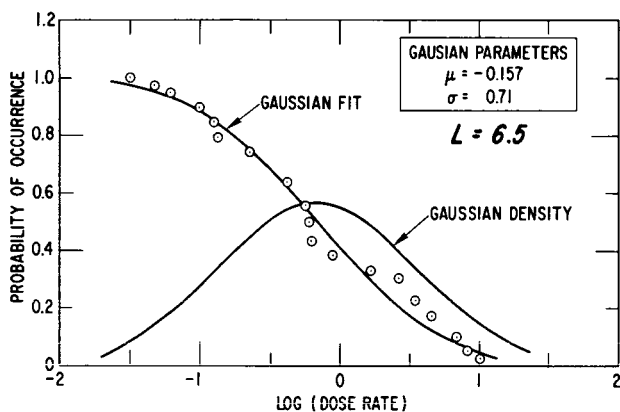


Figure 28—A statistical presentation of the Imp ionization chamber data. See text for a description of the curves.

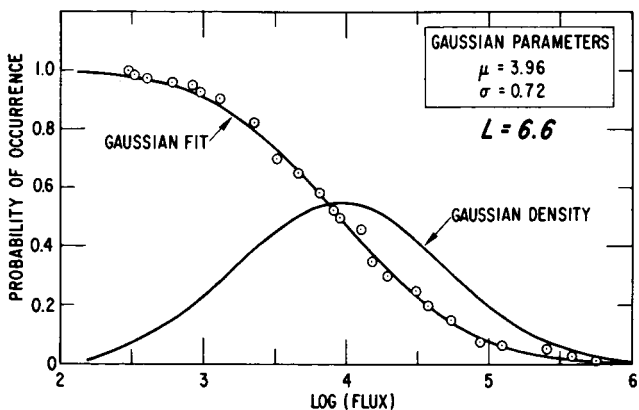


Figure 30—A statistical presentation of the Explorer 14 302 Geiger tube data. See text for a description of the curves.

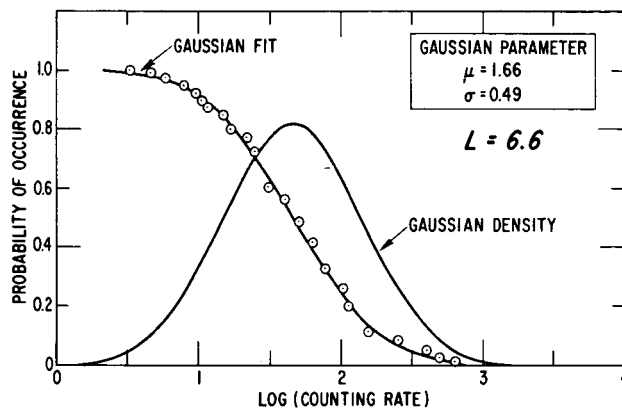


Figure 27—A statistical presentation of the 213 B Geiger tube data. See text for a description of the curves.

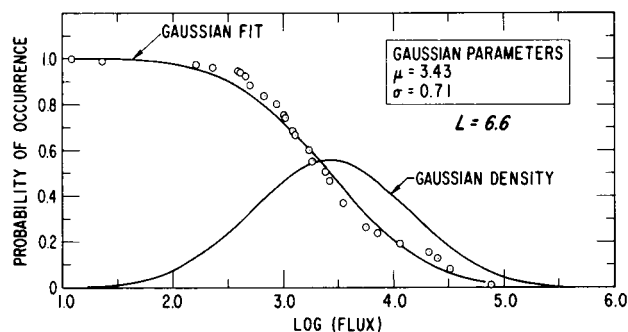


Figure 29—A statistical presentation of the Explorer 12 302 Geiger tube data. See text for a description of the curves.

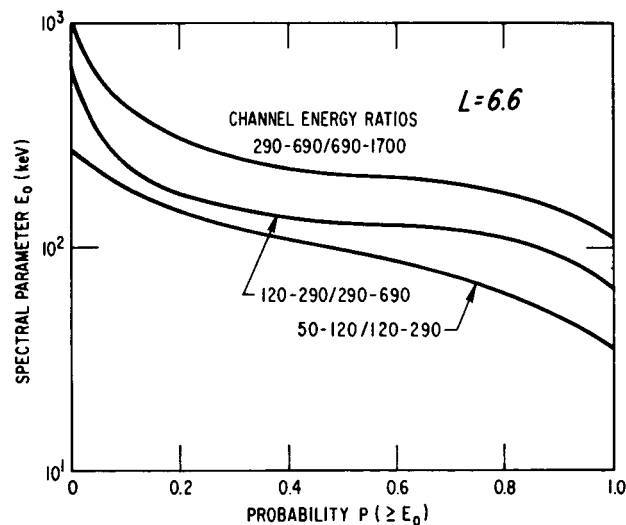


Figure 31—A statistical presentation of the energy spectrum obtained with the OGO spectrometer data. The curves give the probability that the exponential spectral parameter will be greater than a given value. See text for additional explanation.

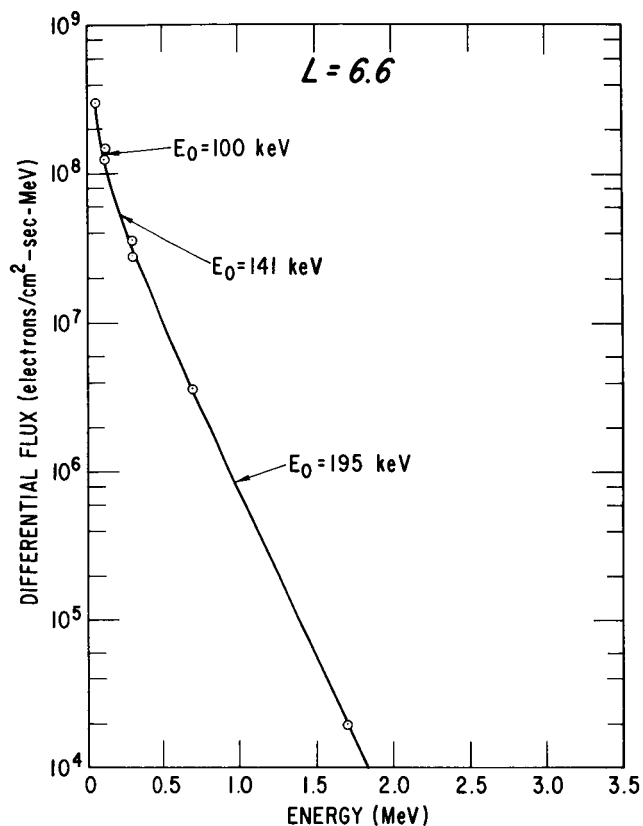
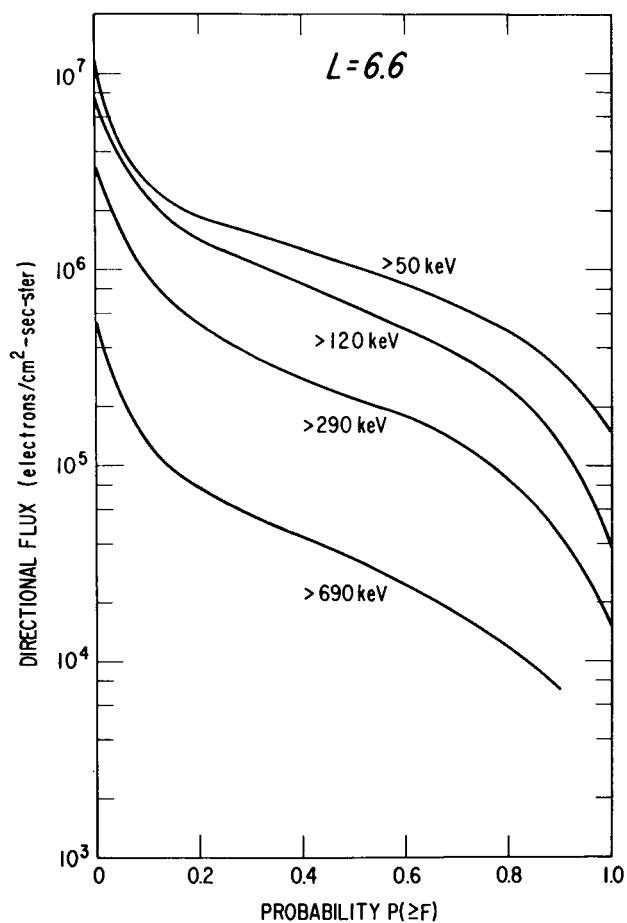


Figure 32—Average differential energy spectrum determined by OGO spectrometer. The curve is drawn through the points which were obtained assuming an exponential spectrum over a fixed energy interval. See text for a detailed description of the procedure.

Figure 33—A statistical presentation of the OGO spectrometer data.



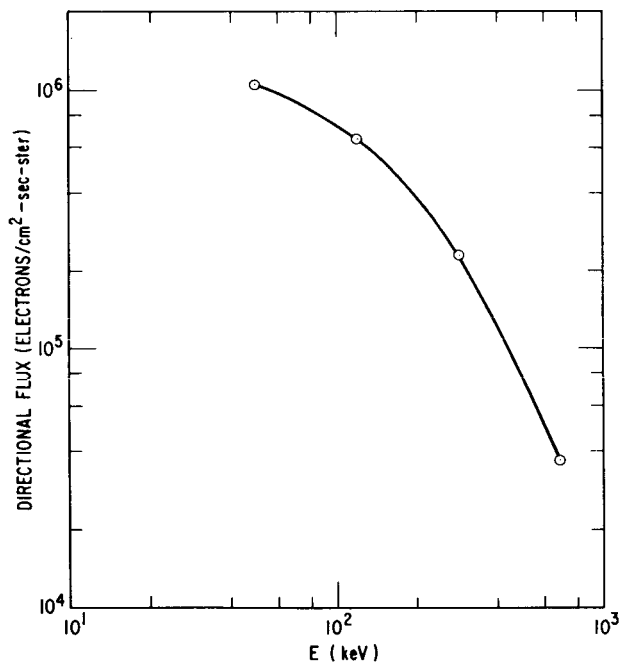
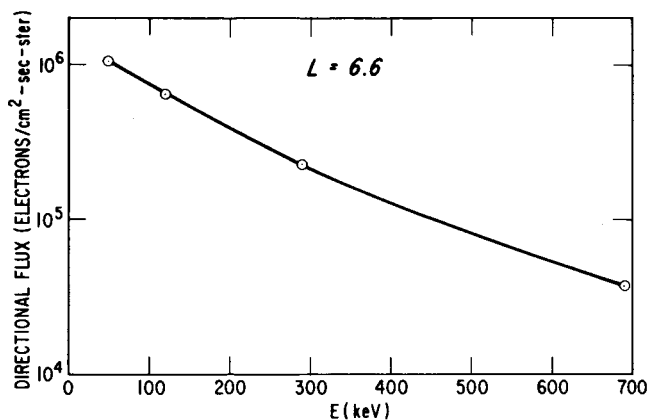


Figure 34—The integral spectrum obtained using the median values from the OGO spectrometer. The plot is made on semi-log and log-log scales to demonstrate exponential and power law behavior. Analysis of the differential spectrum shows an exponential spectrum is more appropriate.

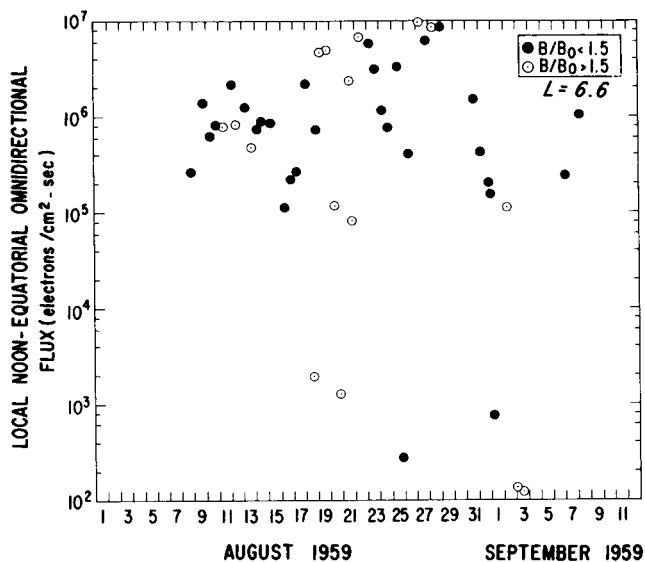


Figure 35—Explorer 6 electron flux as a function of time. The data have been corrected to the equator and to local noon using  $B/B_0$  and local time variations shown in Figures 23 and 24.

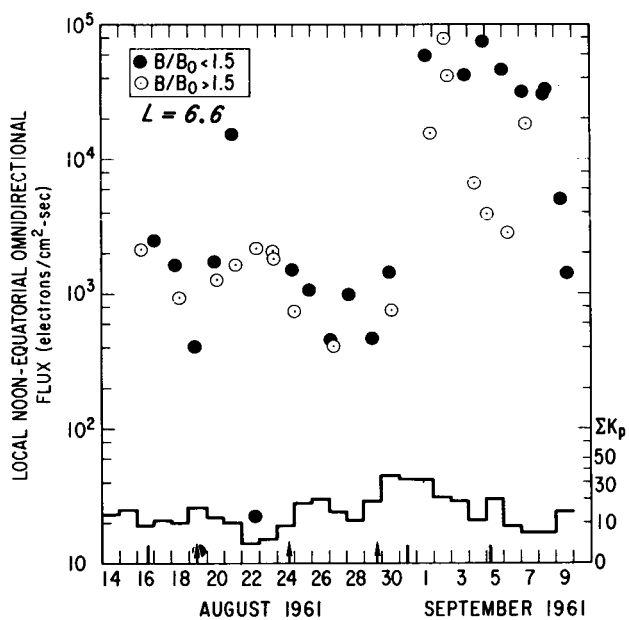


Figure 36—Electron flux  $> 1.9$  MeV for solar rotation number 1753. The data have been corrected to the equator and to local noon. The daily sum of the  $K_p$  indices are given at the bottom of the graph. Arrows indicate the start of a geomagnetic disturbance with sudden commencement. Thick lines indicate the start of a disturbance without sudden commencement.

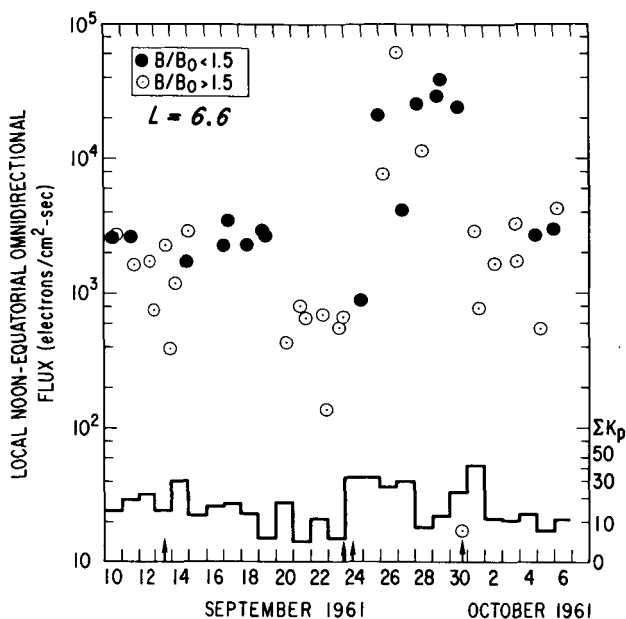


Figure 37—Electron flux  $>1.9$  MeV for solar rotation number 1754. The data have been corrected to the equator and to local noon. The daily sum of the  $K_p$  indices are given at the bottom of the graph. Arrows indicate the start of a geomagnetic disturbance with sudden commencement. Thick lines indicate the start of a disturbance without sudden commencement.

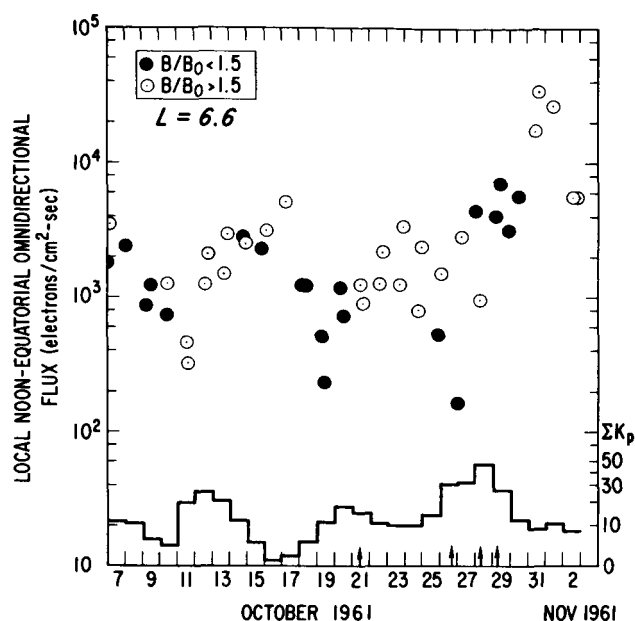


Figure 38—Electron flux  $>1.9$  MeV for solar rotation number 1755. The data have been corrected to the equator and to local noon. The daily sum of the  $K_p$  indices are given at the bottom of the graph. Arrows indicate the start of a geomagnetic disturbance with sudden commencement. Thick lines indicate the start of a disturbance without sudden commencement.

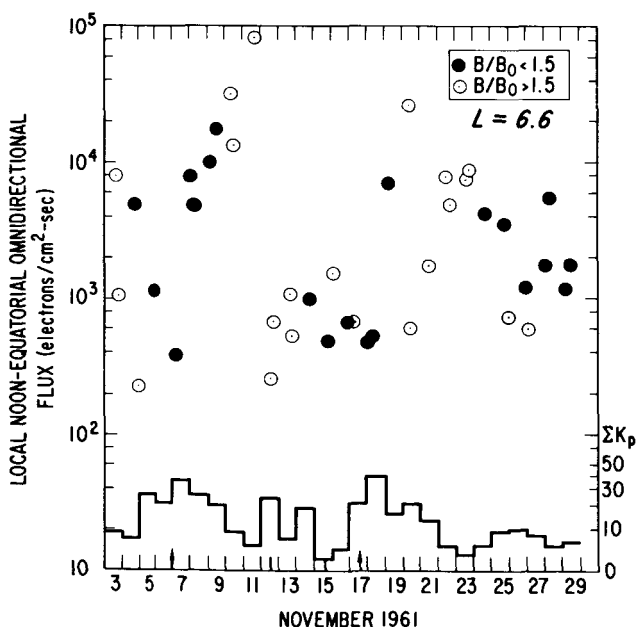


Figure 39—Electron flux  $>1.9$  MeV for solar rotation number 1756. The data have been corrected to the equator and to local noon. The daily sum of the  $K_p$  indices are given at the bottom of the graph. Arrows indicate the start of a geomagnetic disturbance with sudden commencement. Thick lines indicate the start of a disturbance without sudden commencement.

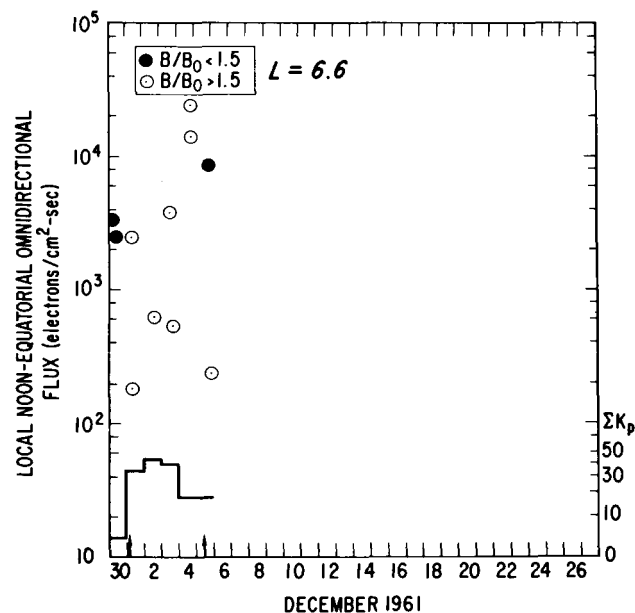


Figure 40—Electron flux  $>1.9$  MeV for solar rotation number 1757. The data have been corrected to the equator and to local noon. The daily sum of the  $K_p$  indices are given at the bottom of the graph. Arrows indicate the start of a geomagnetic disturbance with sudden commencement. Thick lines indicate the start of a disturbance without sudden commencement.

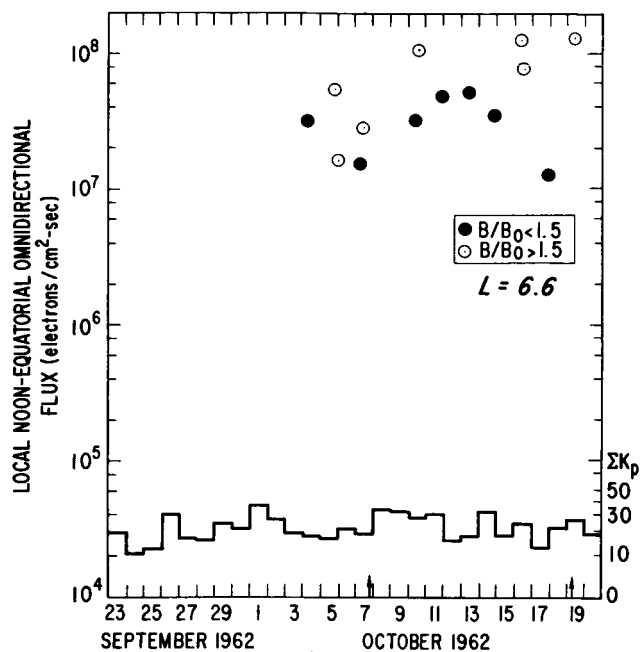


Figure 41—Electron flux  $>40$  keV for solar rotation 1768. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

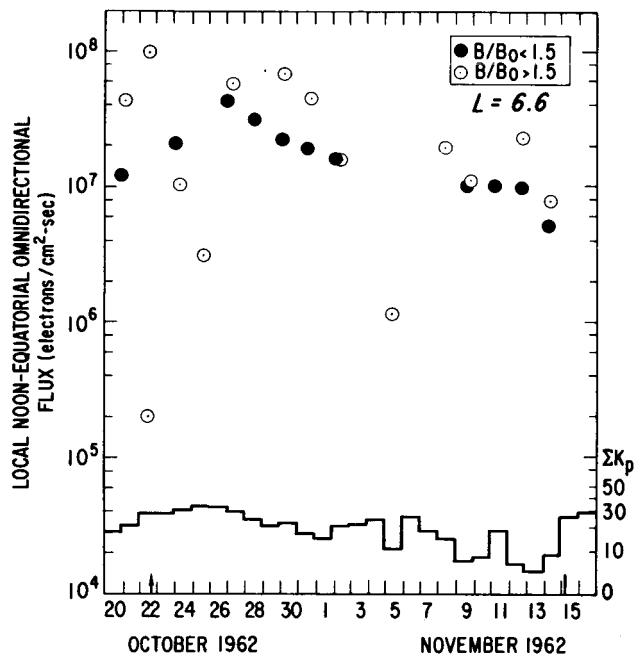


Figure 42—Electron flux  $>40$  keV for solar rotation 1769. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

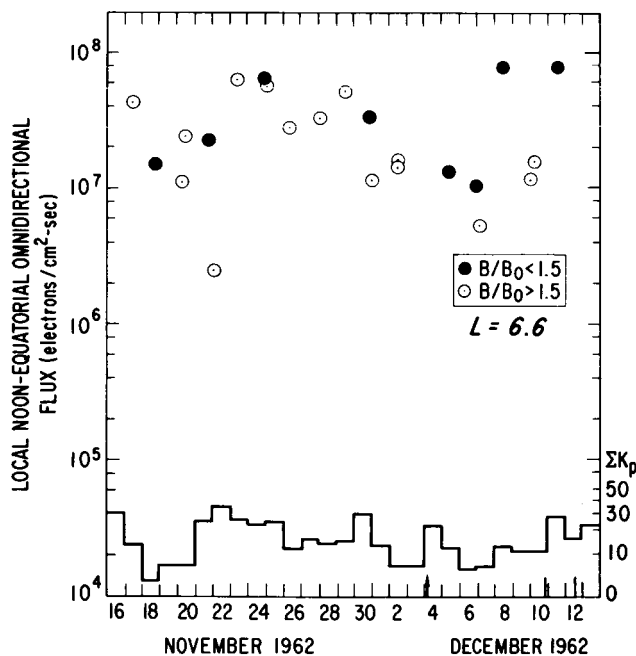


Figure 43—Electron flux  $>40$  keV for solar rotation 1770. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

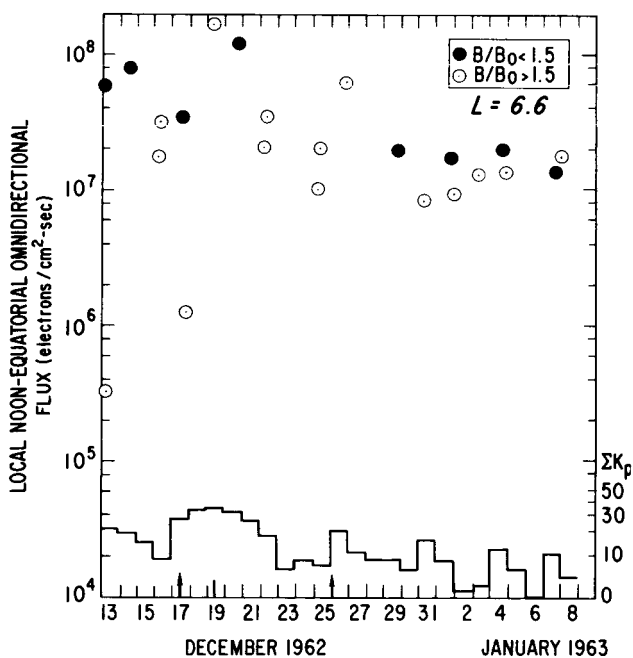


Figure 44—Electron flux  $>40$  keV for solar rotation 1771. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

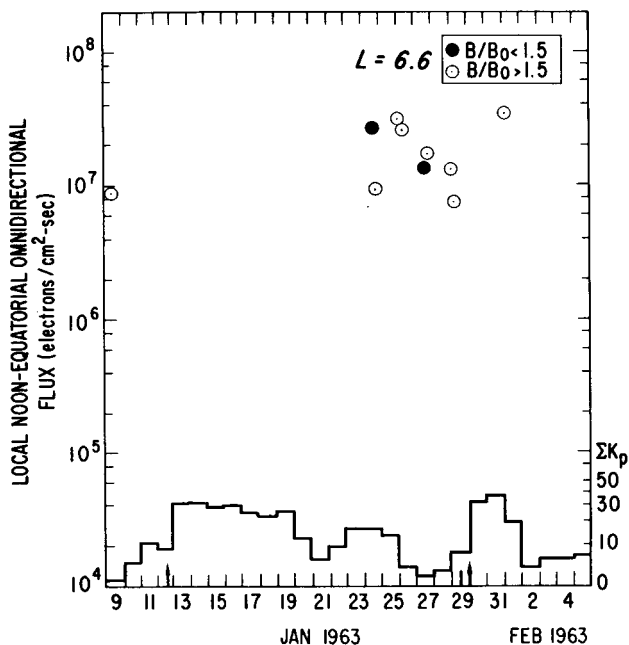


Figure 45—Electron flux  $> 40$  keV for solar rotation 1772. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

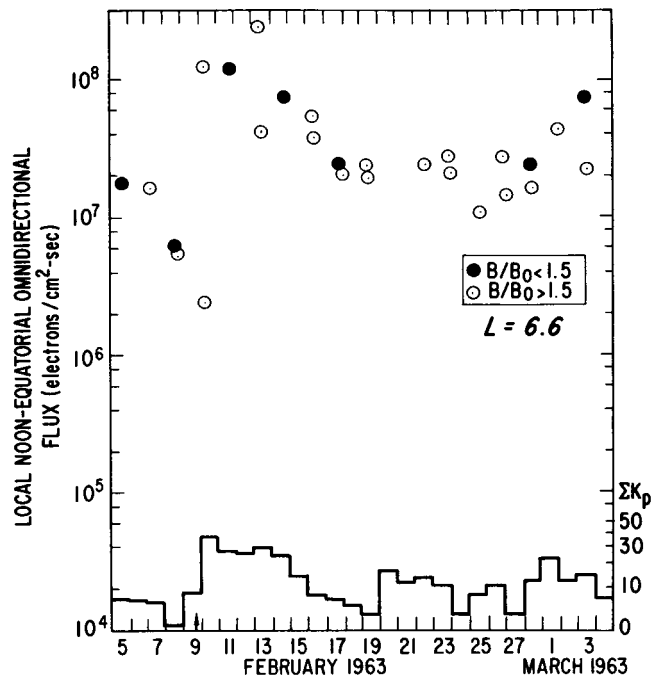


Figure 46—Electron flux  $> 40$  keV for solar rotation 1773. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

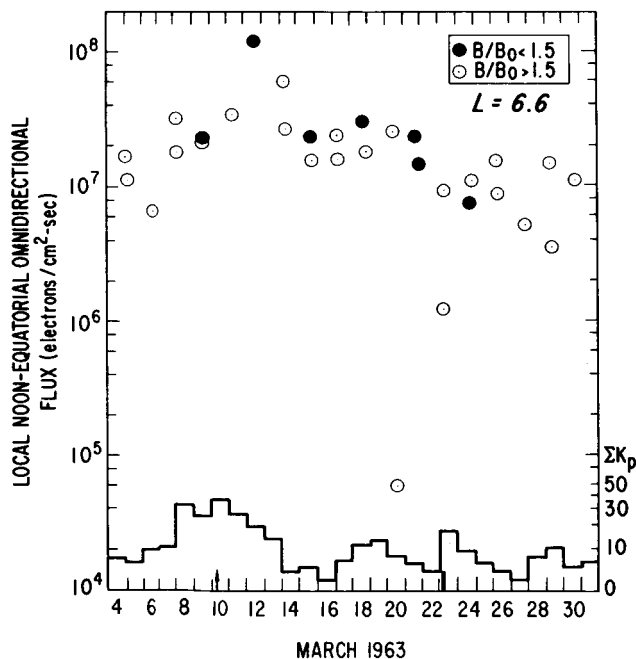


Figure 47—Electron flux  $> 40$  keV for solar rotation 1774. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

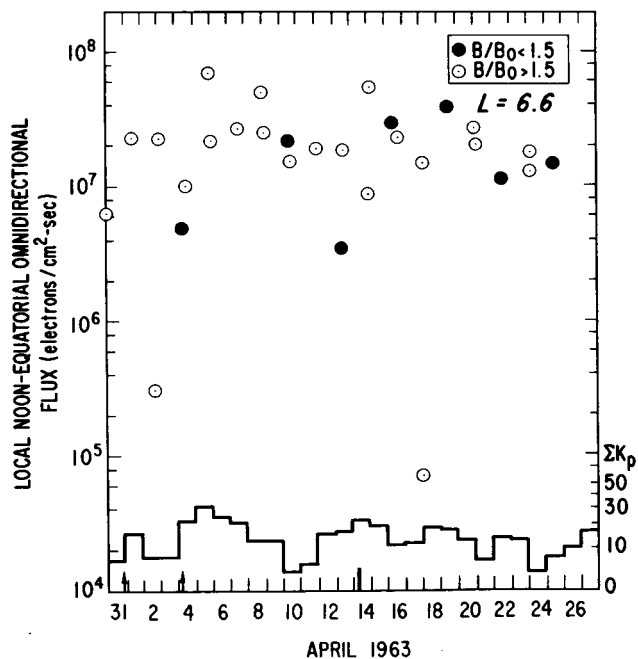


Figure 48—Electron flux  $> 40$  keV for solar rotation 1775. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

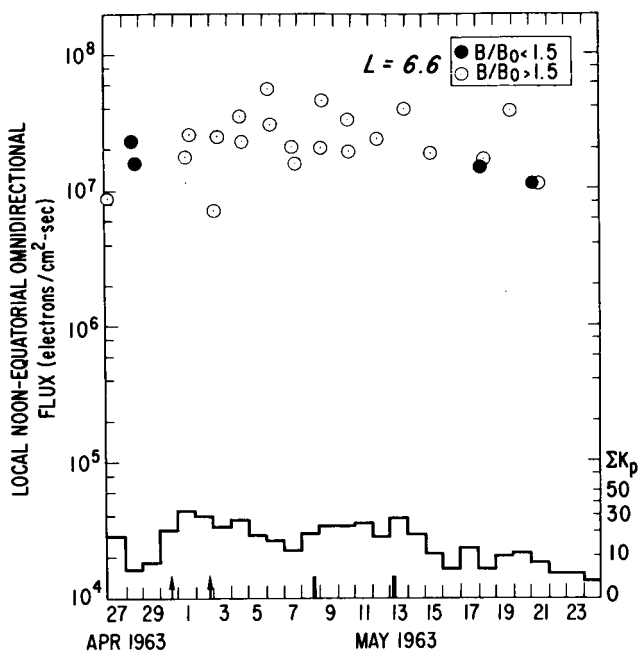


Figure 49—Electron flux > 40 keV for solar rotation 1776. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

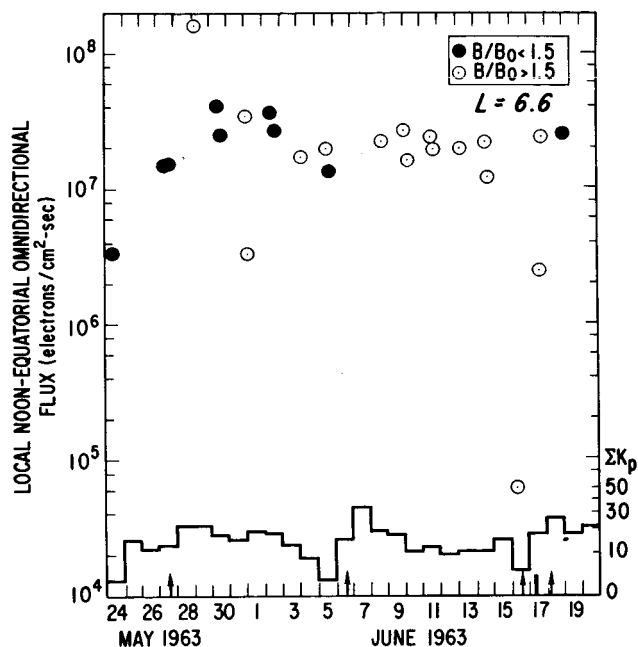


Figure 50—Electron flux > 40 keV for solar rotation 1777. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

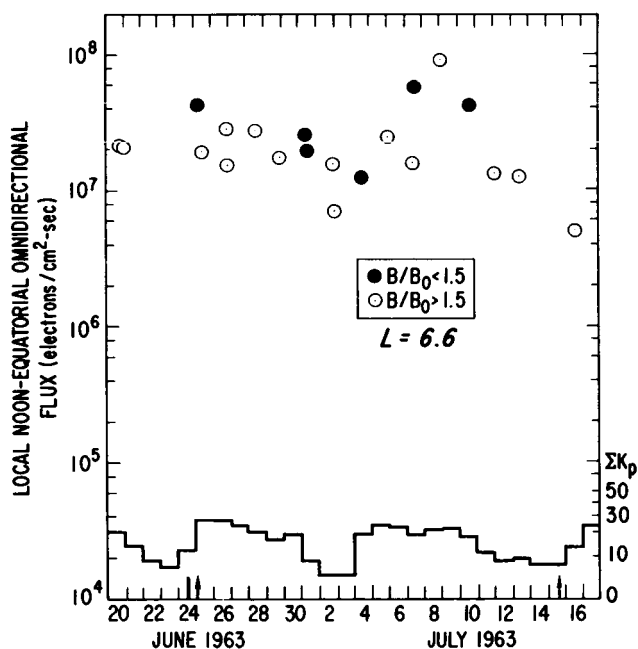


Figure 51—Electron flux > 40 keV for solar rotation 1778. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

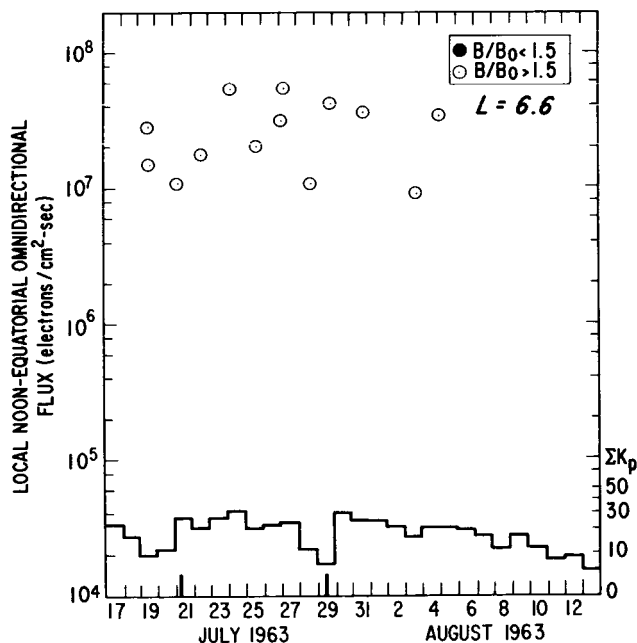


Figure 52—Electron flux > 40 keV for solar rotation 1779. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.



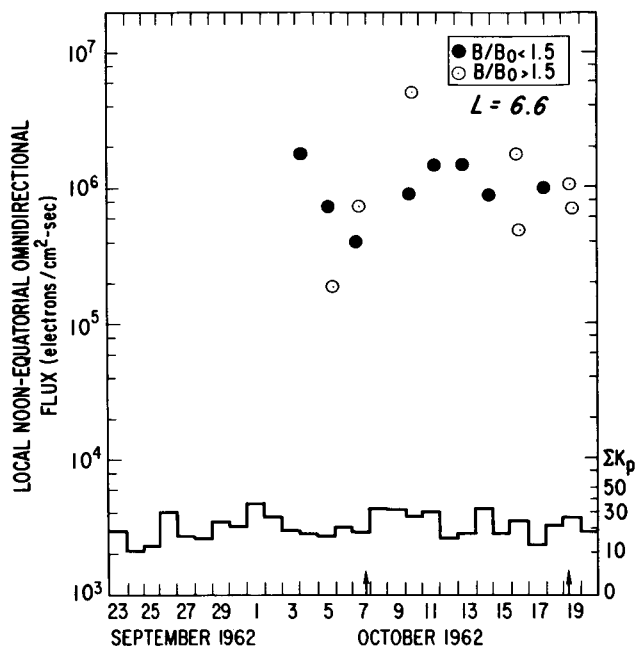


Figure 53—Electron flux > 230 keV for solar rotation 1768. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

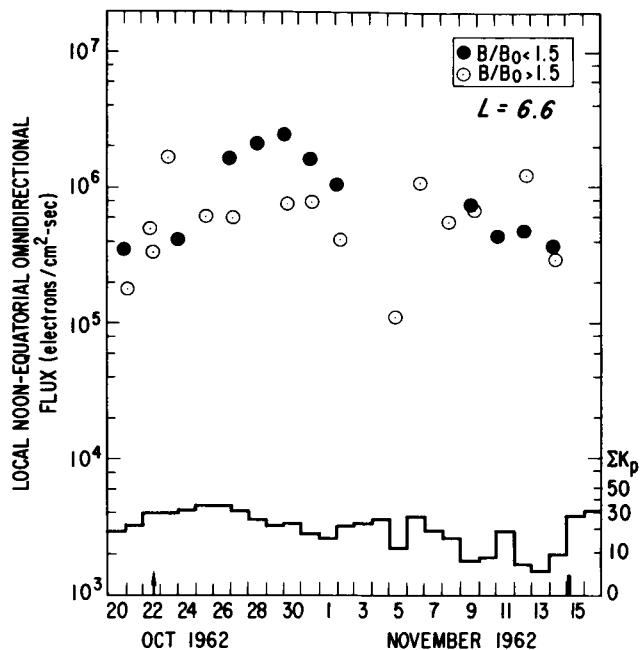


Figure 54—Electron flux > 230 keV for solar rotation 1769. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

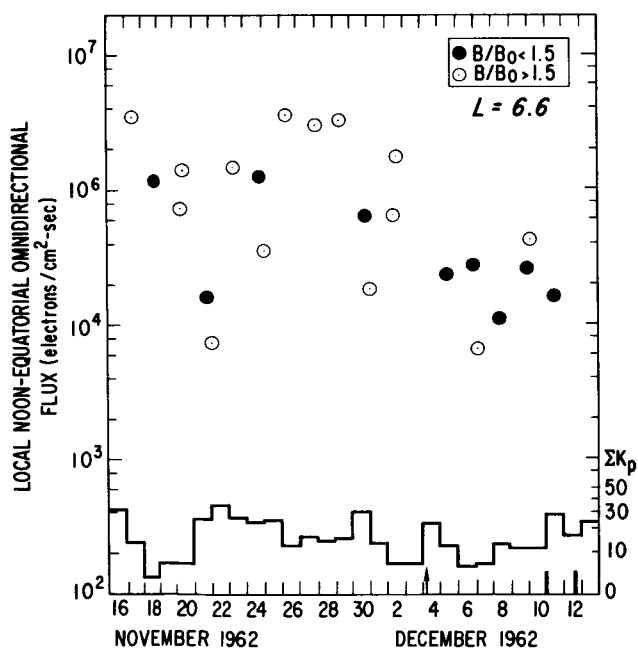


Figure 55—Electron flux > 230 keV for solar rotation 1770. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

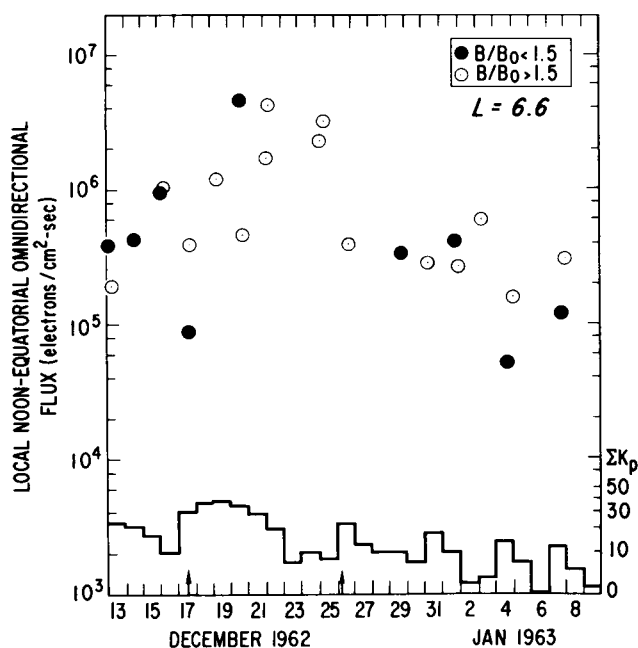


Figure 56—Electron flux > 230 keV for solar rotation 1771. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

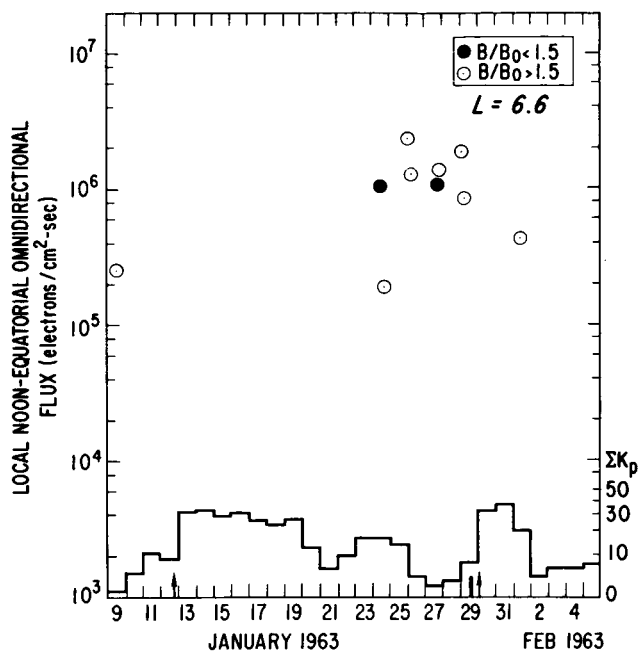


Figure 57—Electron flux > 230 keV for solar rotation 1772. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

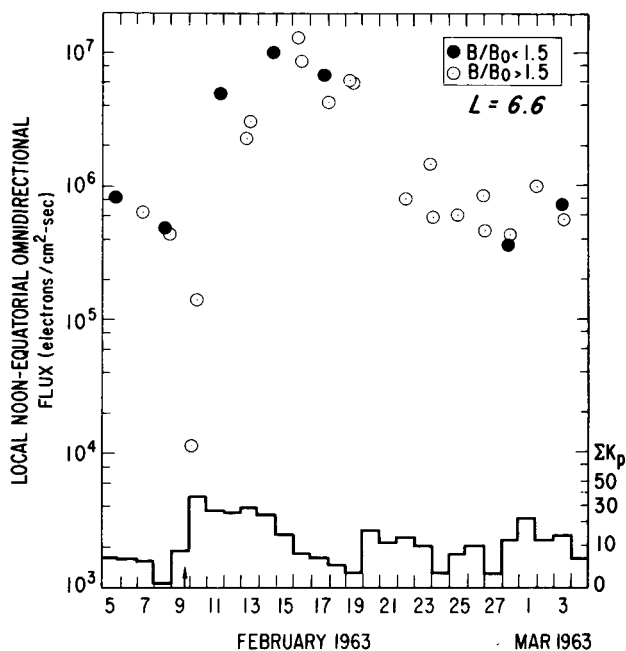


Figure 58—Electron flux > 230 keV for solar rotation 1773. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

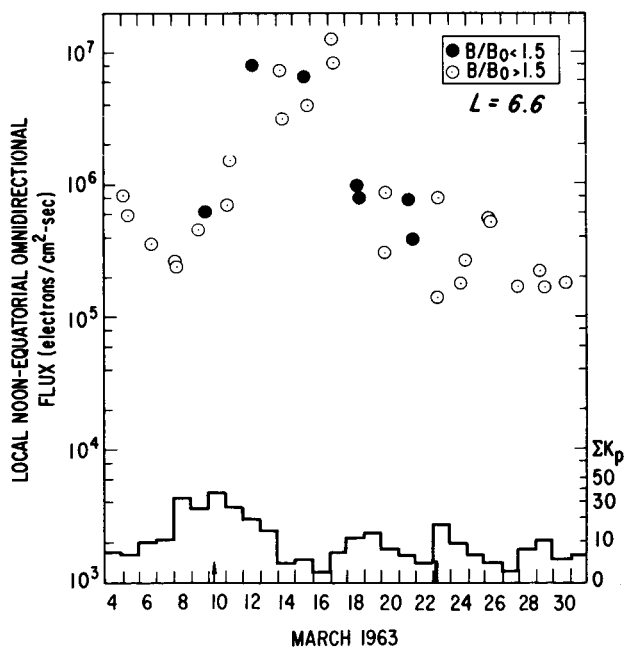


Figure 59—Electron flux > 230 keV for solar rotation 1774. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

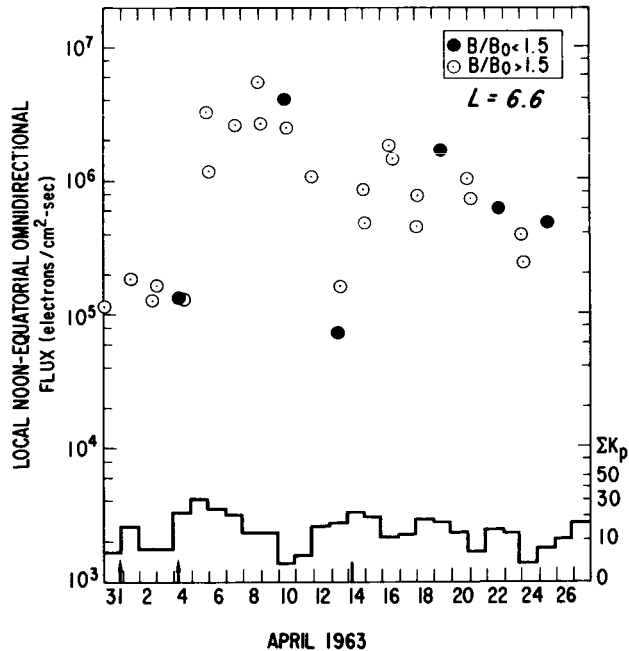


Figure 60—Electron flux > 230 keV for solar rotation 1775. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

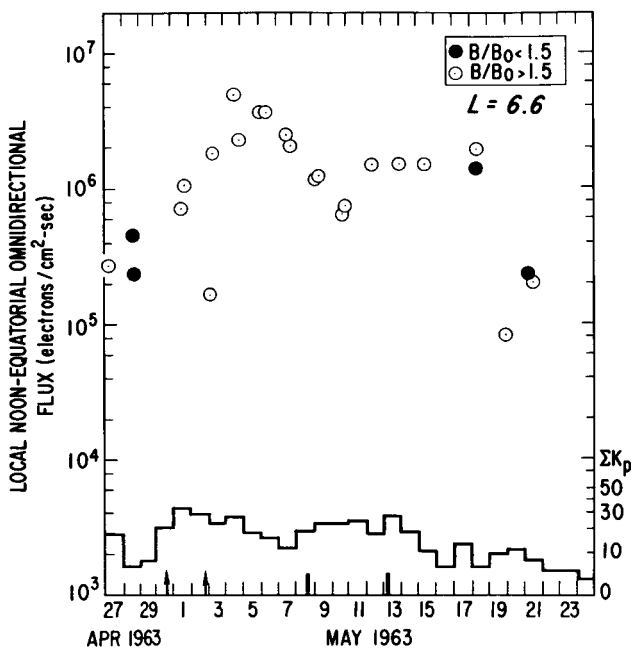


Figure 61—Electron flux >230 keV for solar rotation 1776. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

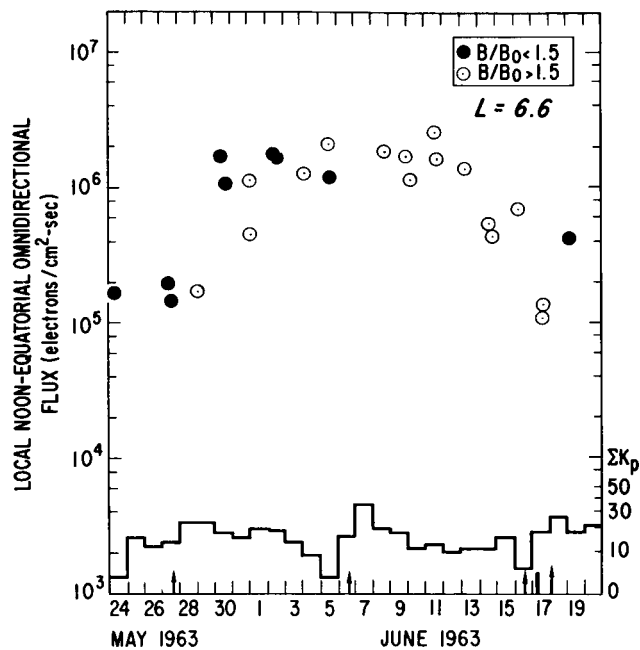


Figure 62—Electron flux >230 keV for solar rotation 1777. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

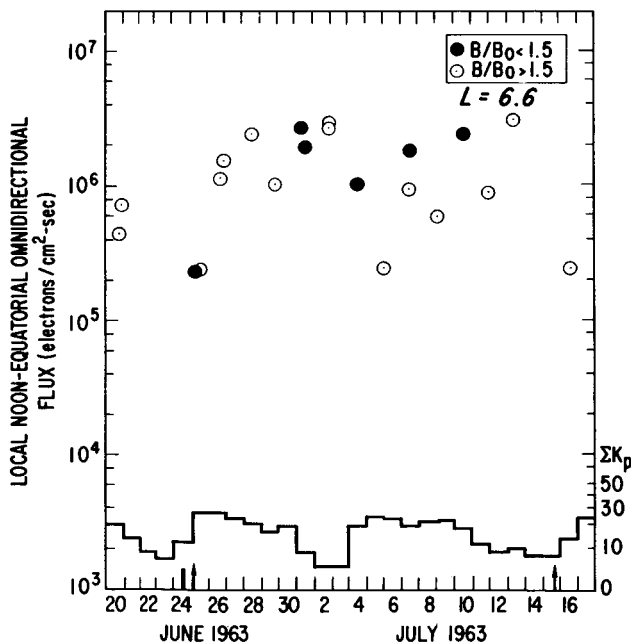


Figure 63—Electron flux >230 keV for solar rotation 1778. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

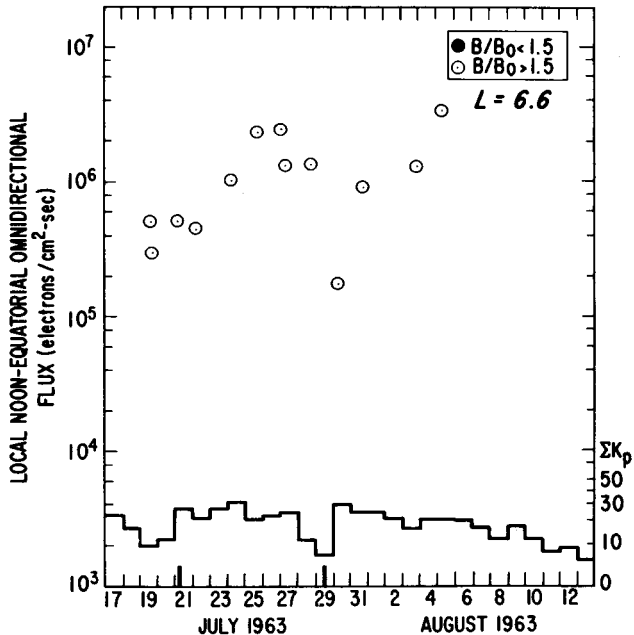


Figure 64—Electron flux >230 keV for solar rotation 1779. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

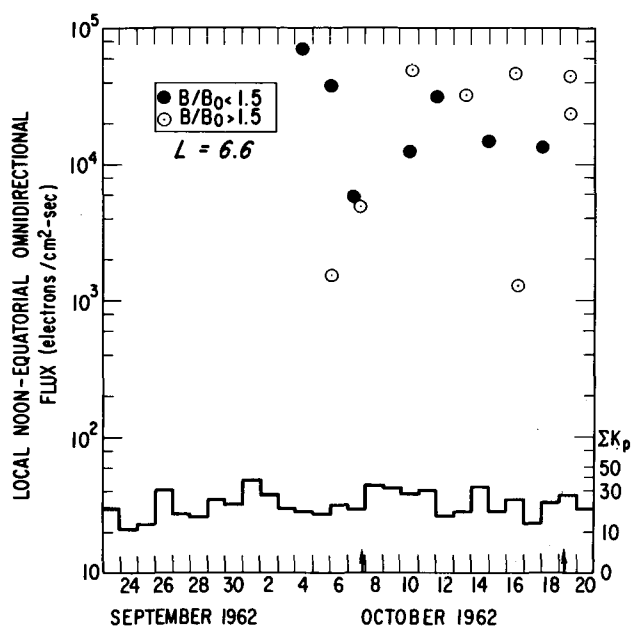


Figure 65—Electron flux  $>1.9$  MeV for solar rotation 1768. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

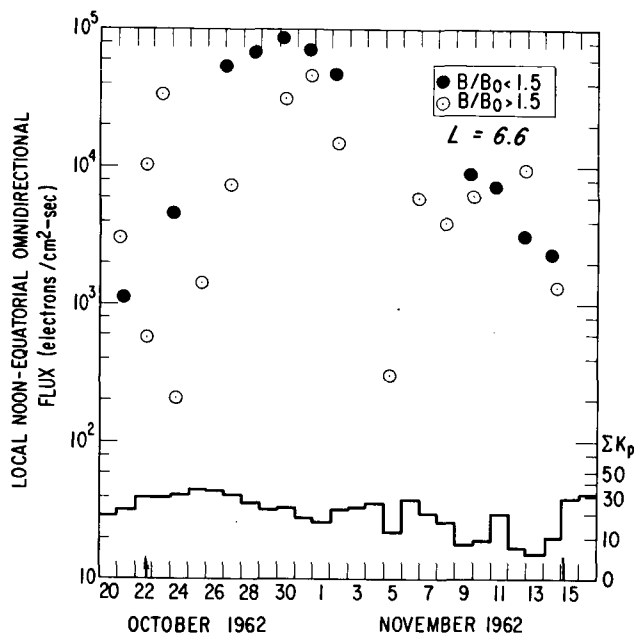


Figure 66—Electron flux  $>1.9$  MeV for solar rotation 1769. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

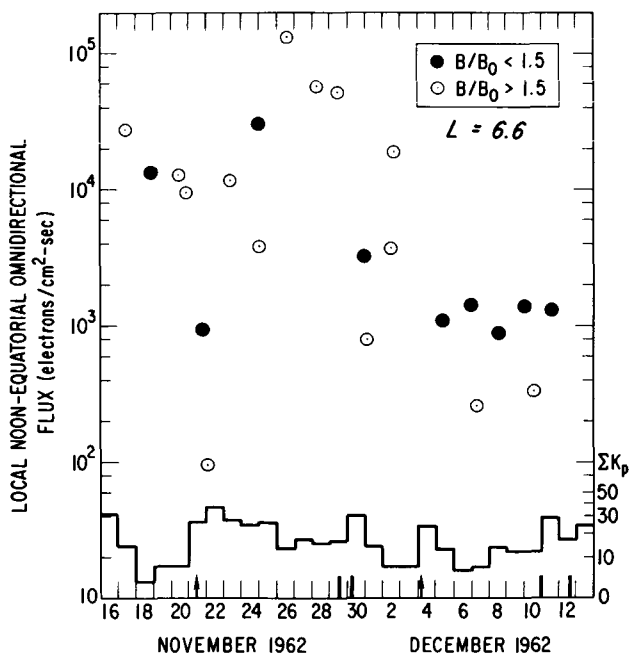


Figure 67—Electron flux  $>1.9$  MeV for solar rotation 1770. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

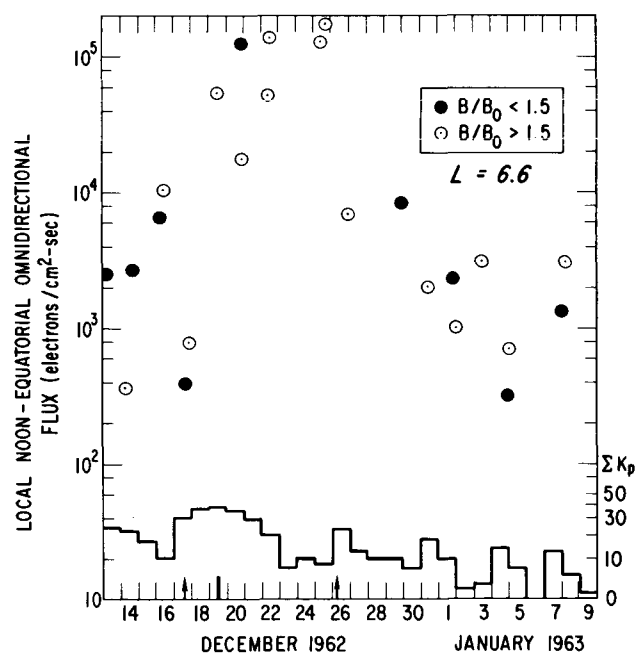


Figure 68—Electron flux  $>1.9$  MeV for solar rotation 1771. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

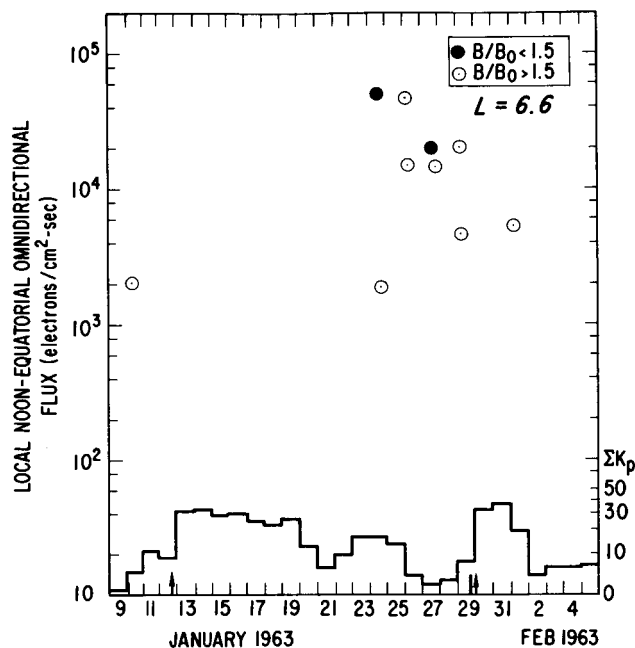


Figure 69—Electron flux  $>1.9$  MeV for solar rotation 1772. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

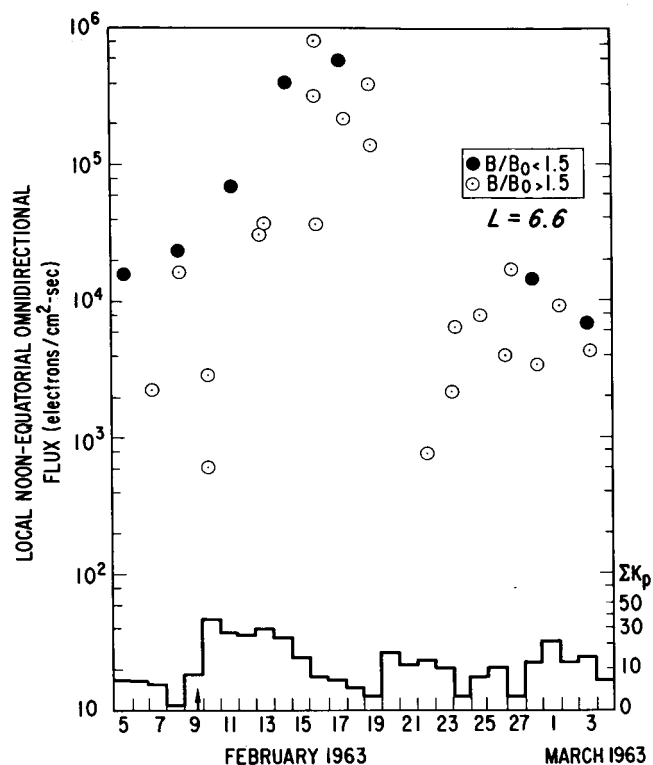


Figure 70—Electron flux  $>1.9$  MeV for solar rotation 1773. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

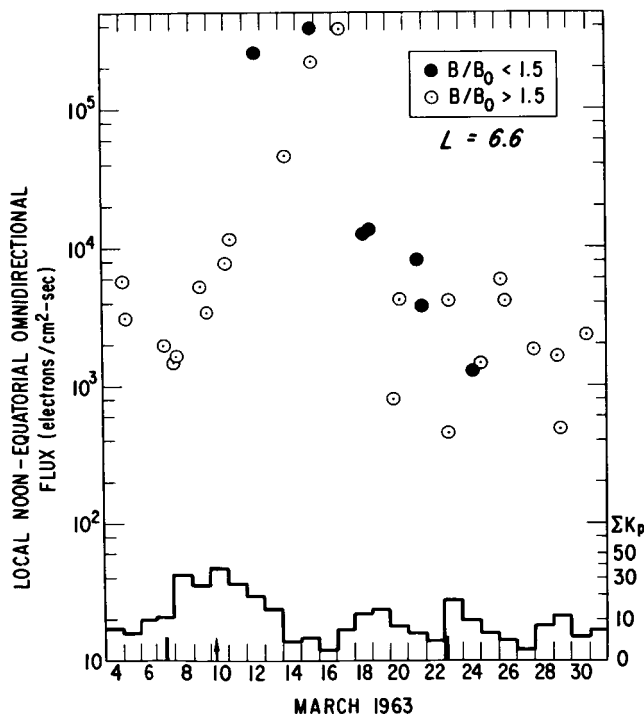


Figure 71—Electron flux  $>1.9$  MeV for solar rotation 1774. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

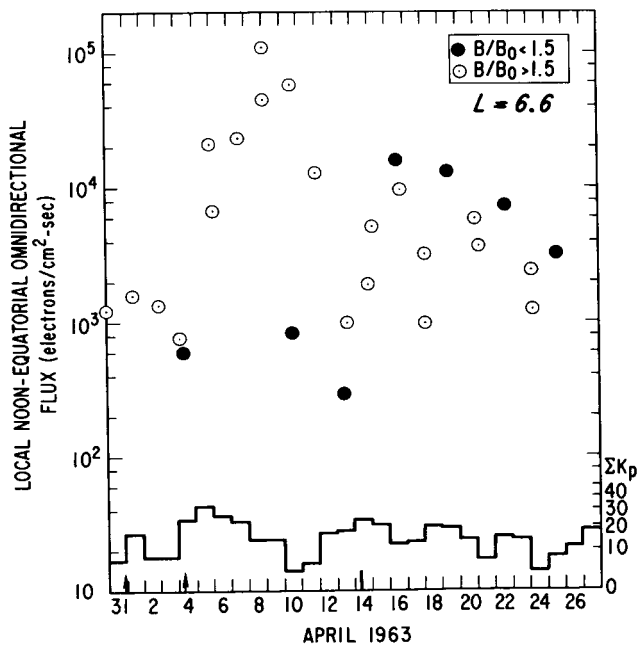


Figure 72—Electron flux  $>1.9$  MeV for solar rotation 1775. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

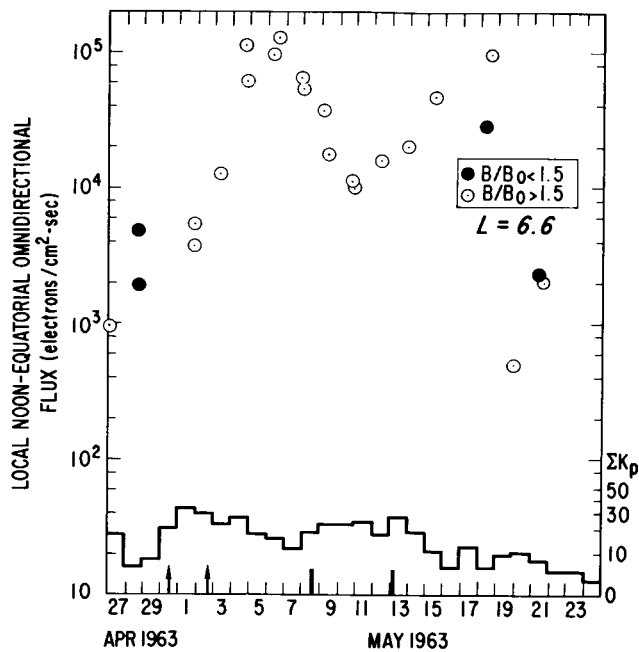


Figure 73—Electron flux  $>1.9$  MeV for solar rotation 1776. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

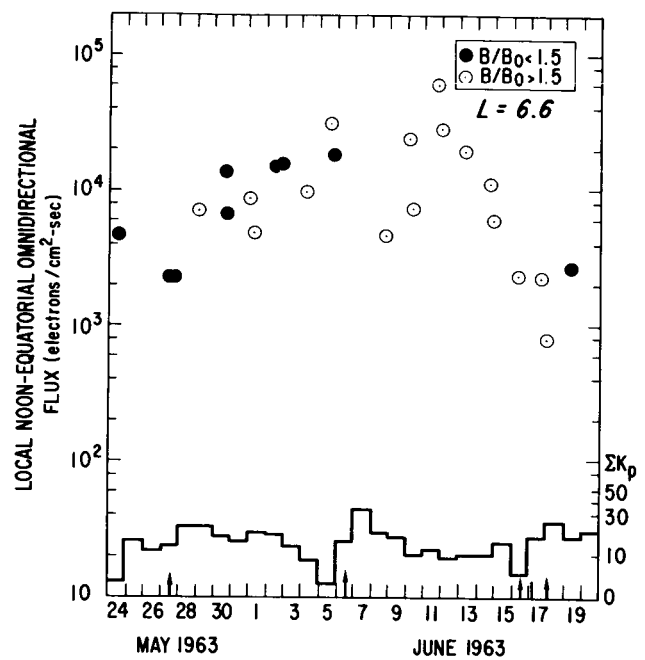


Figure 74—Electron flux  $>1.9$  MeV for solar rotation 1777. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

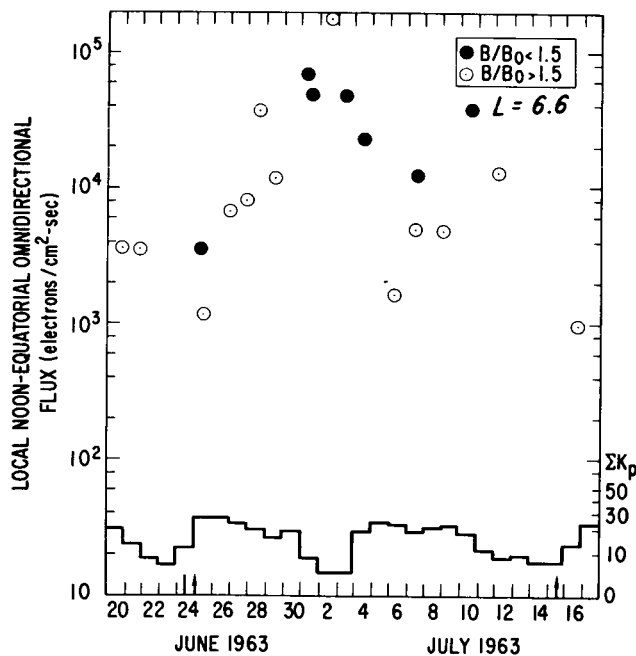


Figure 75—Electron flux  $>1.9$  MeV for solar rotation 1778. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

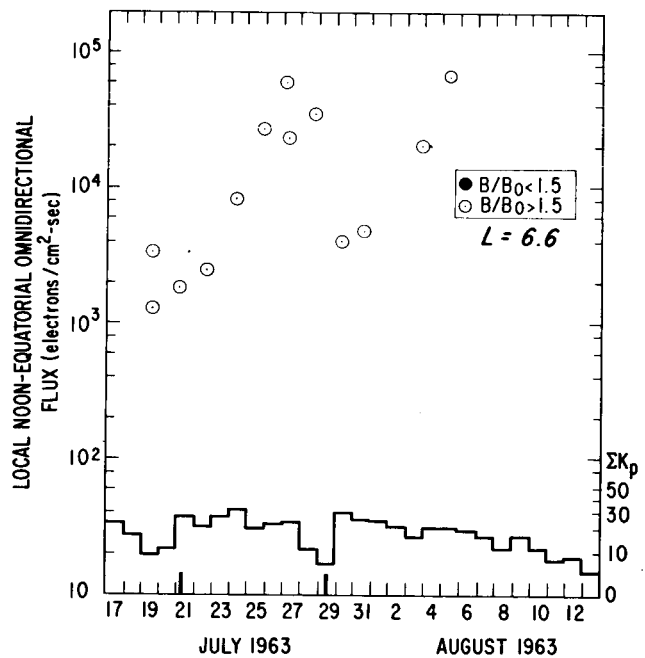


Figure 76—Electron flux  $>1.9$  MeV for solar rotation 1779. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

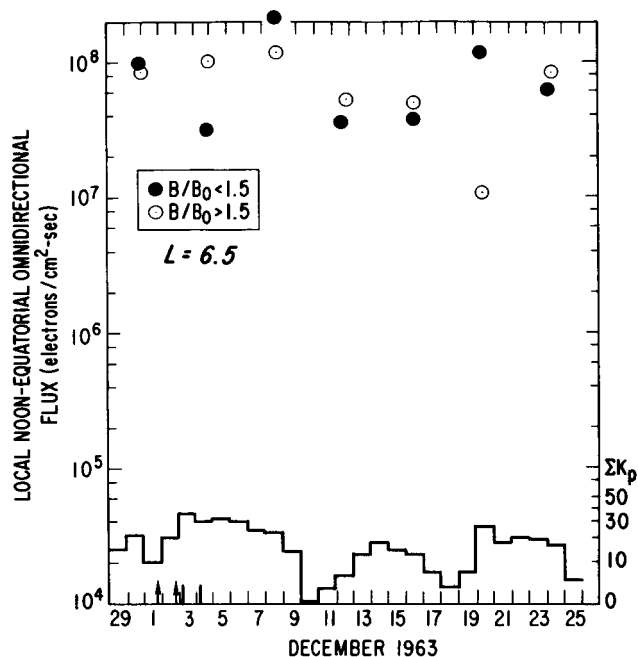


Figure 77—Electron flux > 45 keV for solar rotation 1784. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

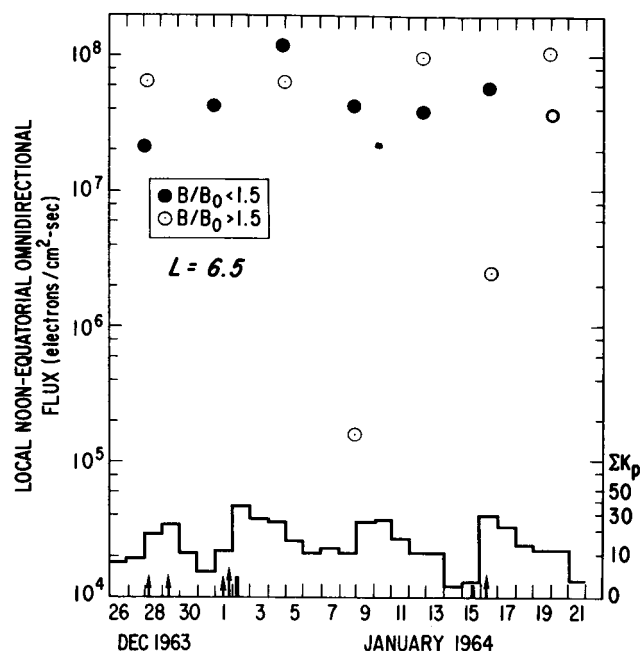


Figure 78—Electron flux > 45 keV for solar rotation 1785. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

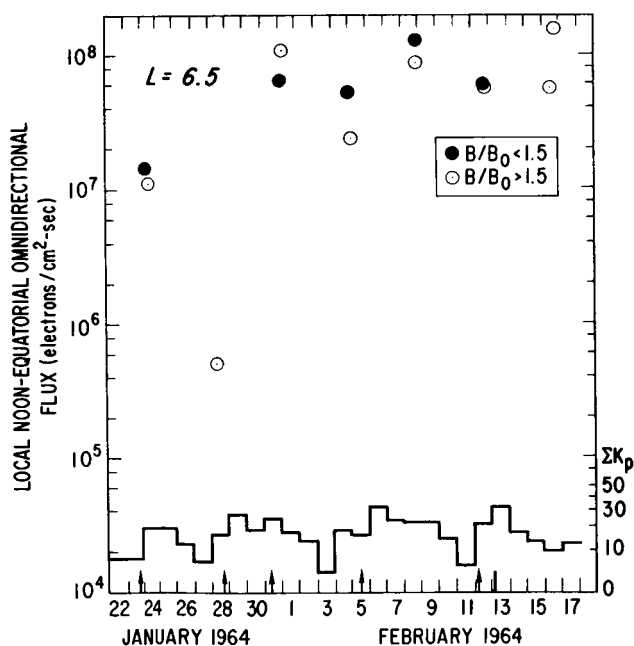


Figure 79—Electron flux > 45 keV for solar rotation 1786. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

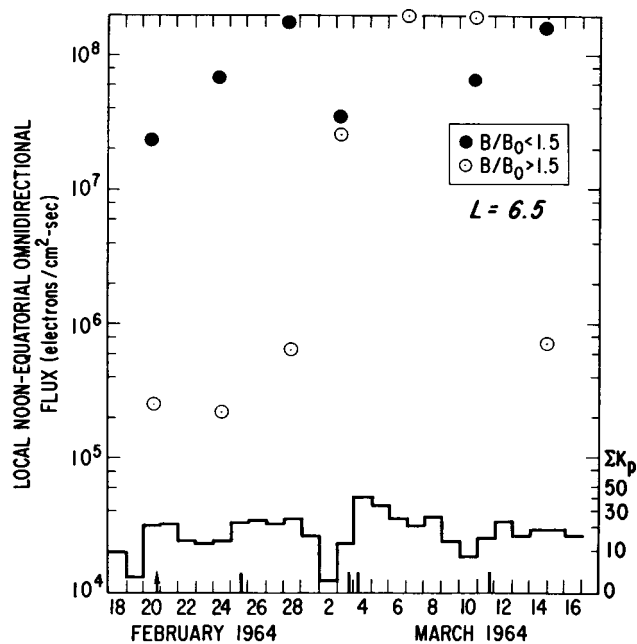


Figure 80—Electron flux > 45 keV for solar rotation 1787. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

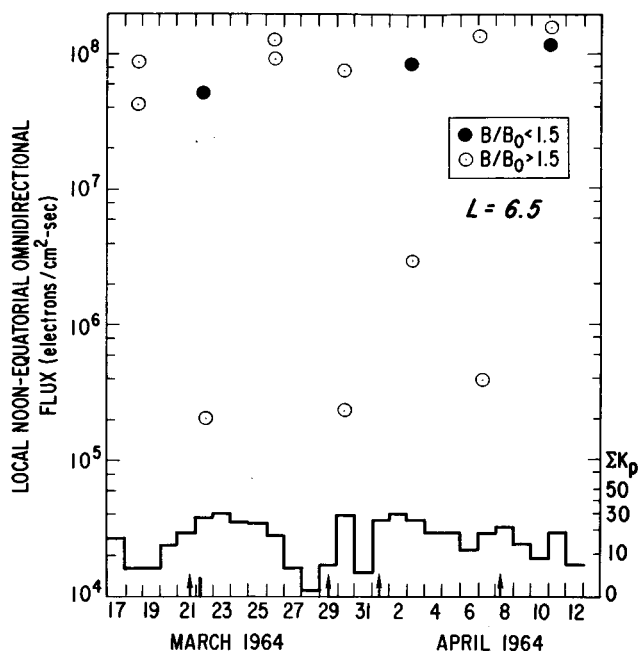


Figure 81—Electron flux >45 keV for solar rotation 1788. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

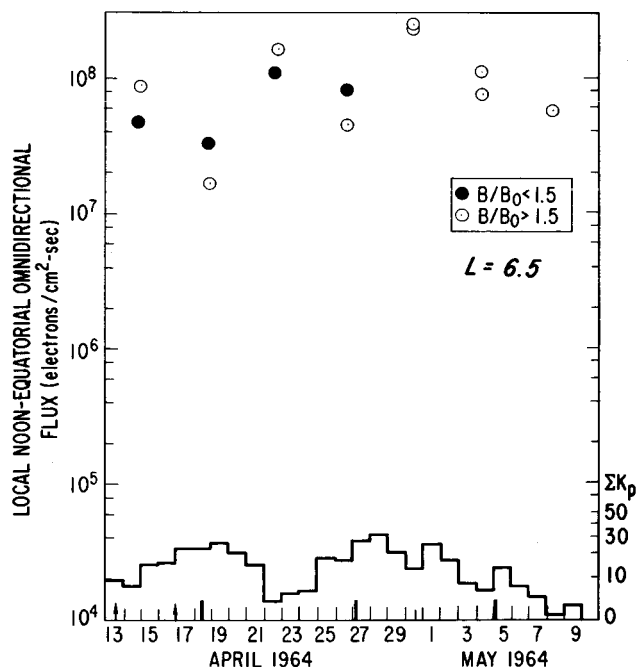


Figure 82—Electron flux >45 keV for solar rotation 1789. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

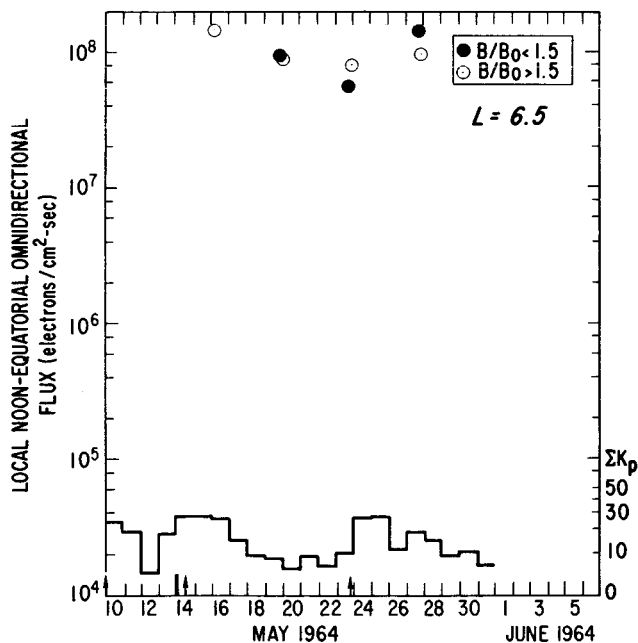


Figure 83—Electron flux >45 keV for solar rotation 1790. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

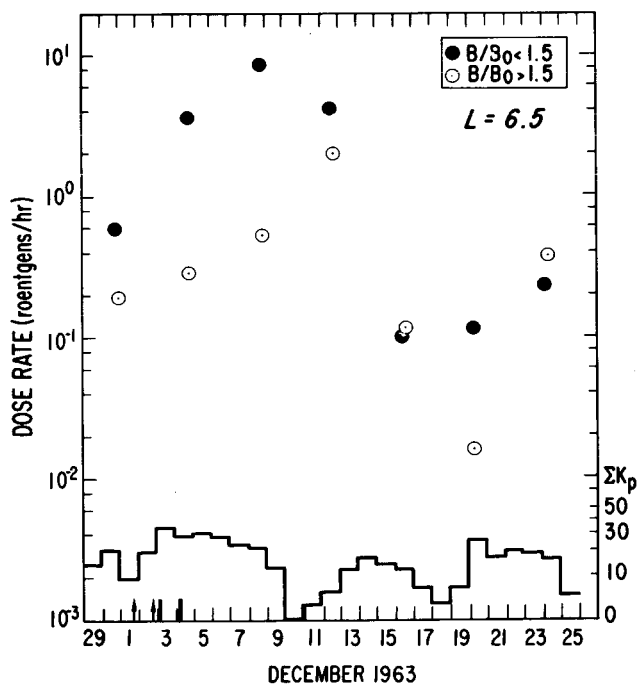


Figure 84—Dose rate behind ~370 mg/cm<sup>2</sup> of aluminum for solar rotation 1784. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.



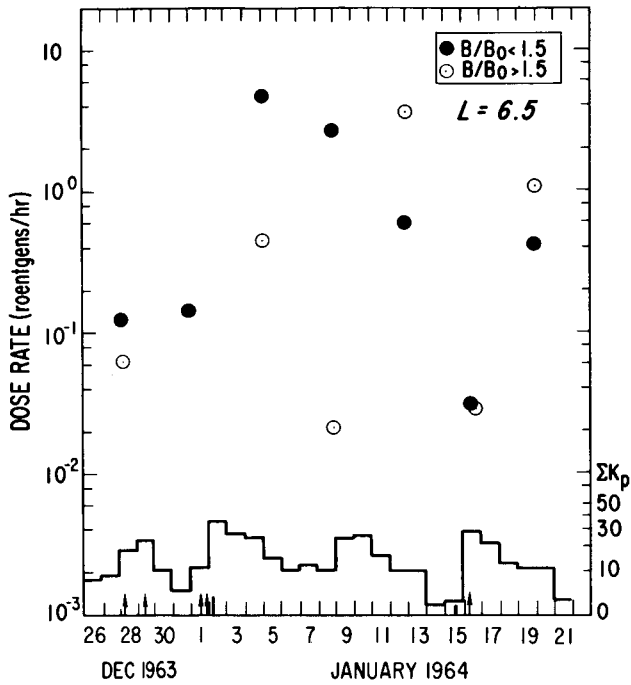


Figure 85—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1785. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

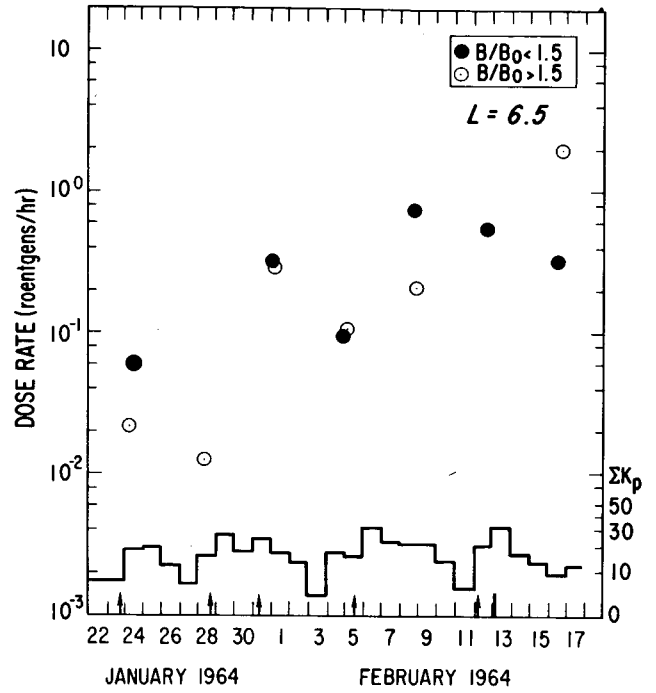


Figure 86—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1786. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

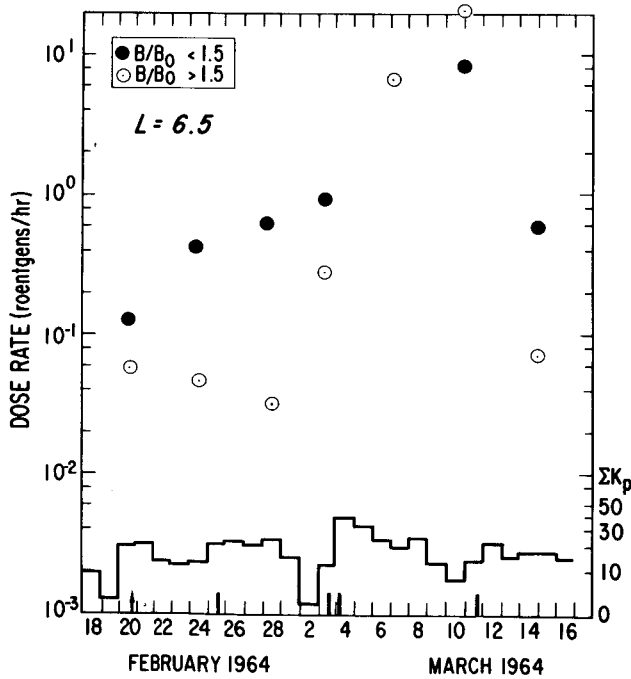


Figure 87—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1787. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

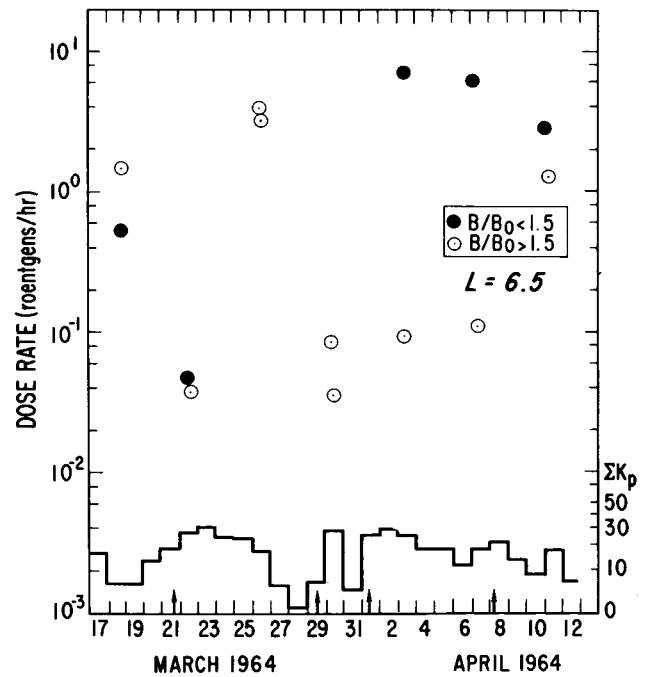


Figure 88—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1788. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

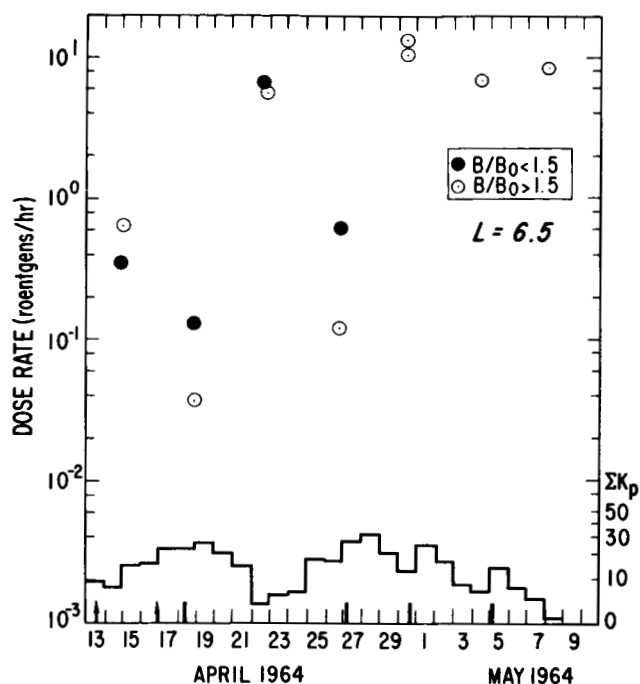


Figure 89—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1789. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

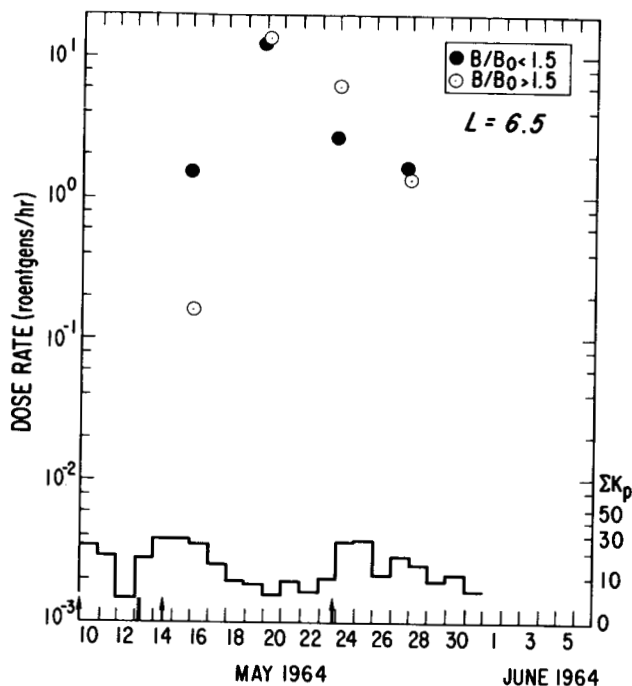


Figure 90—Dose rate behind  $\sim 370$  mg/cm<sup>2</sup> of aluminum for solar rotation 1790. The data have been corrected to the equator and to local noon. The other symbols are the same as described in Figure 36.

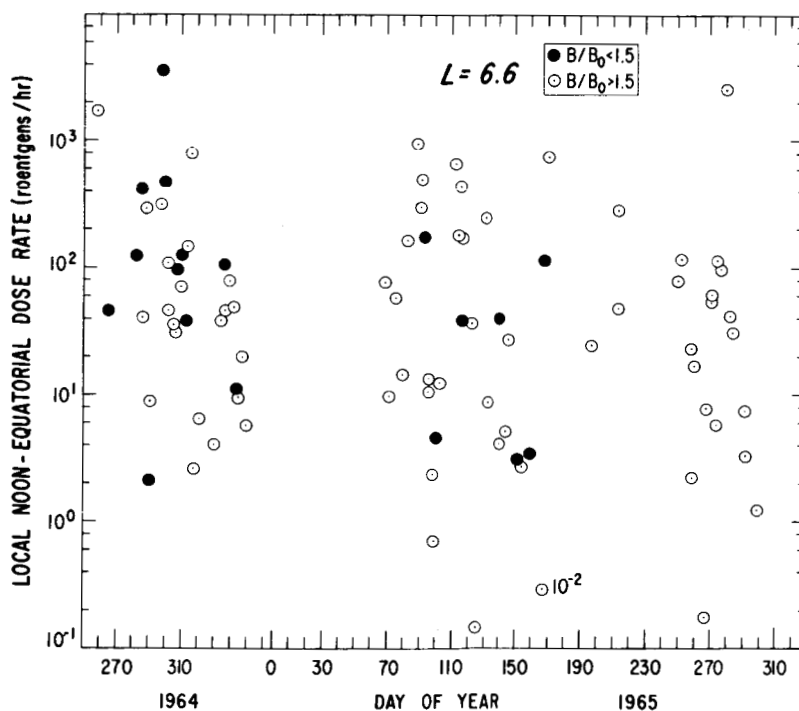


Figure 91—OGO dose rate behind 240 mg/cm<sup>2</sup> of aluminum as a function of time. The data have been corrected to the equator and to local noon.

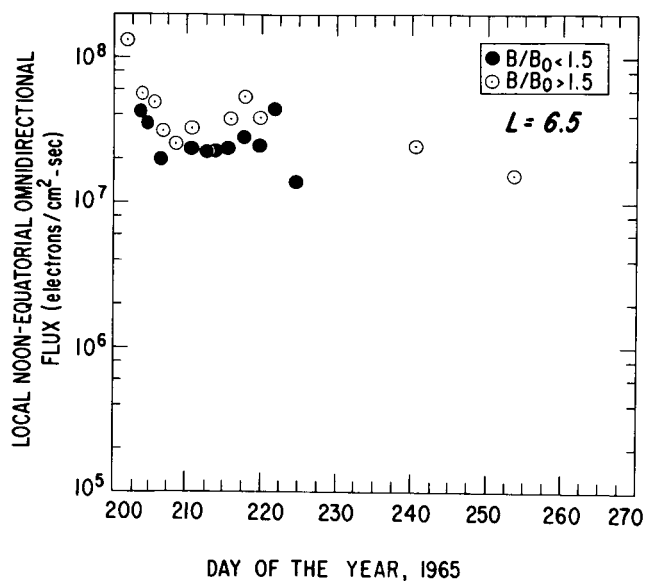


Figure 92—ERS-17 electron flux > 40 keV as a function of time. The data have been corrected to the equator and to local noon.

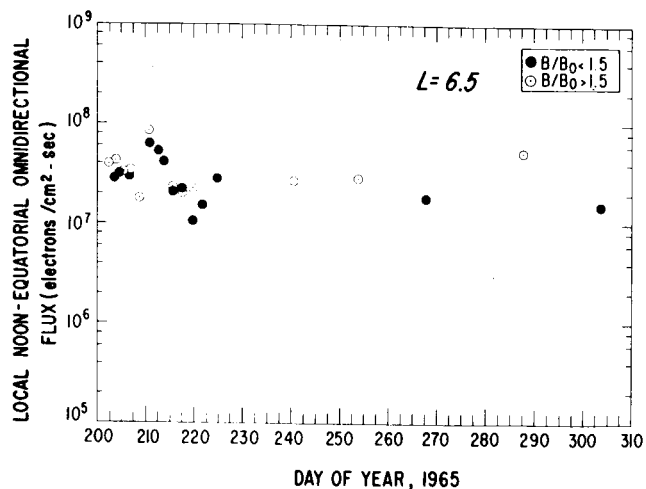


Figure 93—ERS-17 electron flux > 100 keV as a function of time. The data have been corrected to the equator and to local noon.

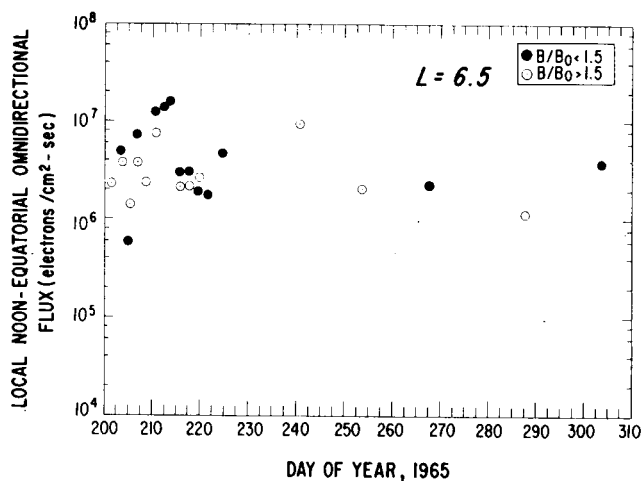


Figure 94—ERS-17 electron flux > 400 keV as a function of time. The data have been corrected to the equator and to local noon.

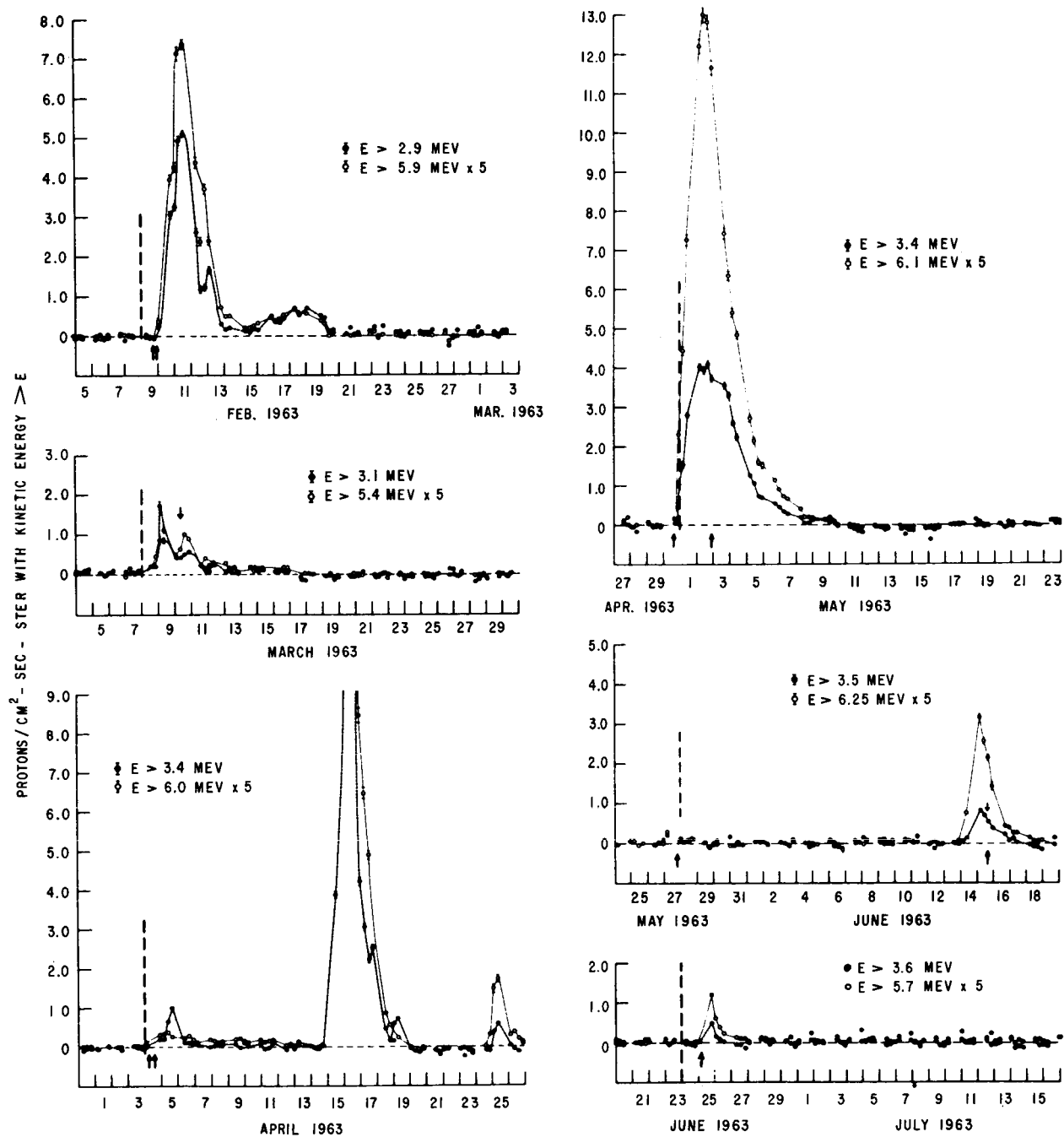


Figure 95—Integral proton intensities for solar rotations 1773 - 1778. Each datum point represents a six hour average. The arrows indicate sudden commencements followed by magnetic storms and the dashed line is a 27-day fiducial marker. Three flare-associated events occur in late April and mid June (after Bryant et al. Reference 26).

Figure 96—Three-hour average values of plasma velocity,  $v$ , and proton number density,  $n_p$ , versus time observed by Mariner 2 (after Neugebauer and Snyder Reference 28).

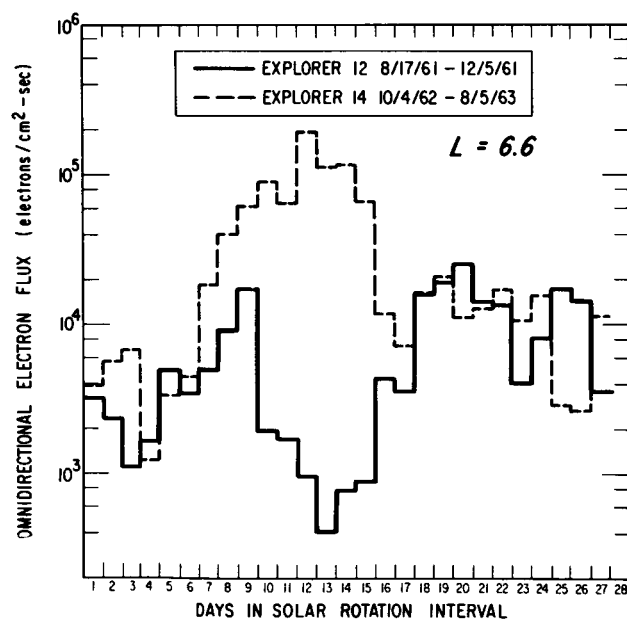
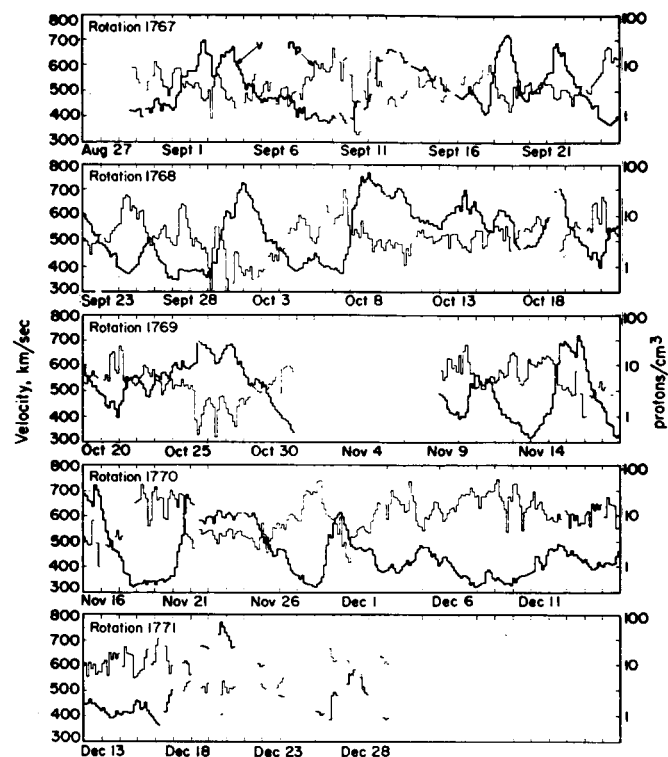


Figure 97—Electron flux  $>1.9$  MeV as a function of solar rotation.

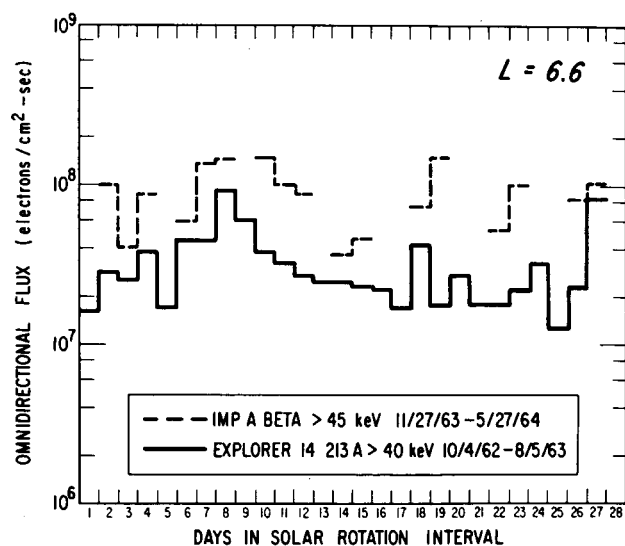


Figure 98—Electron flux  $\geq 40$  keV as a function of solar rotation.

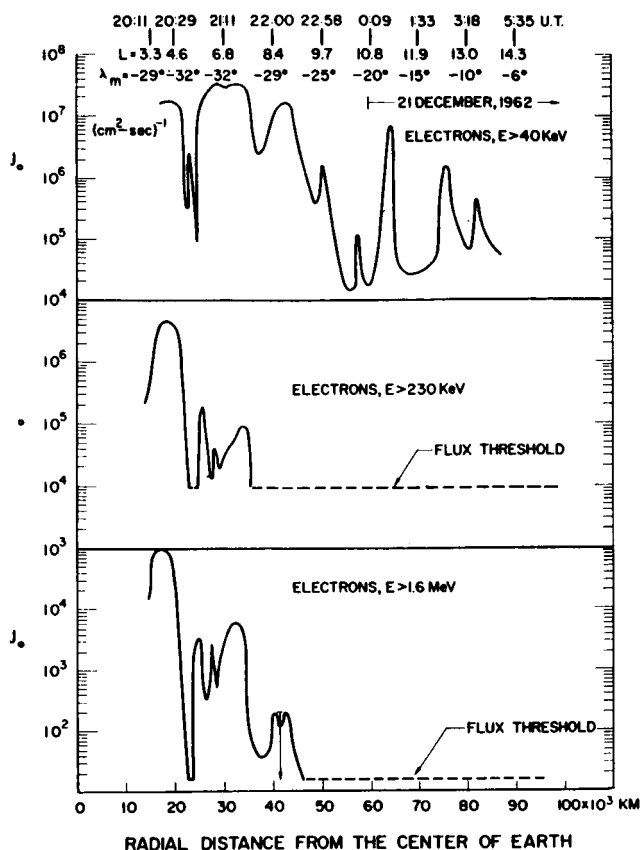


Figure 99—Radial profiles of the omnidirectional fluxes of electrons for the outbound pass of Explorer 14 on 20-21 December 1962 (after Frank Reference 31).

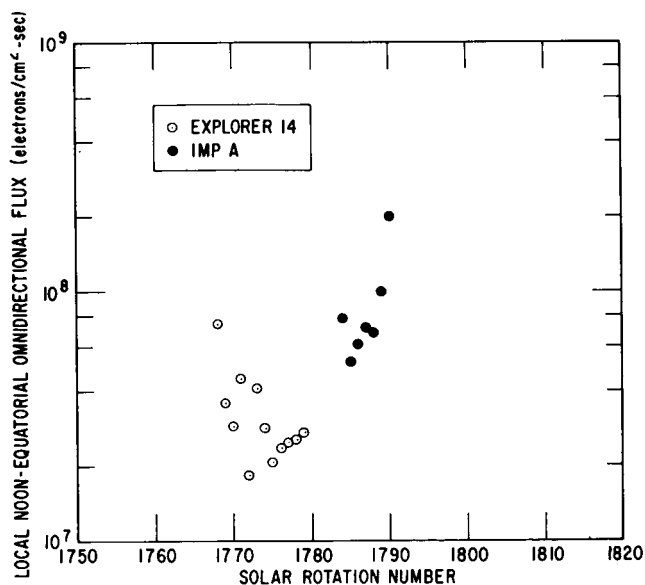


Figure 101—Average electron flux  $\geq 40$  keV as a function of solar rotation number.

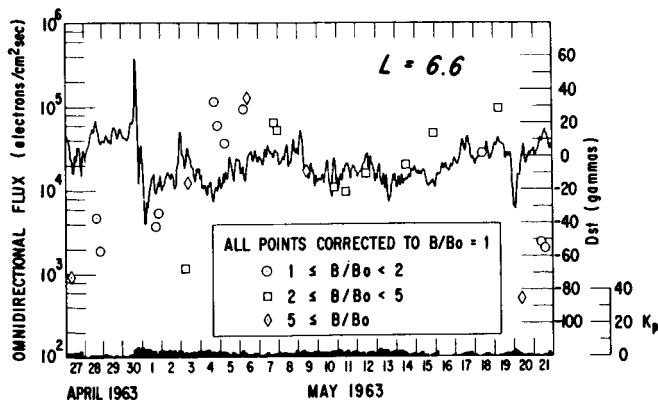


Figure 100—A comparison of  $D_{st}$  and electron flux  $> 1.9$  MeV for one solar rotation. No decay correction has been made for the data but all points are corrected to the equator. The three hour  $K_p$  indices are also given.

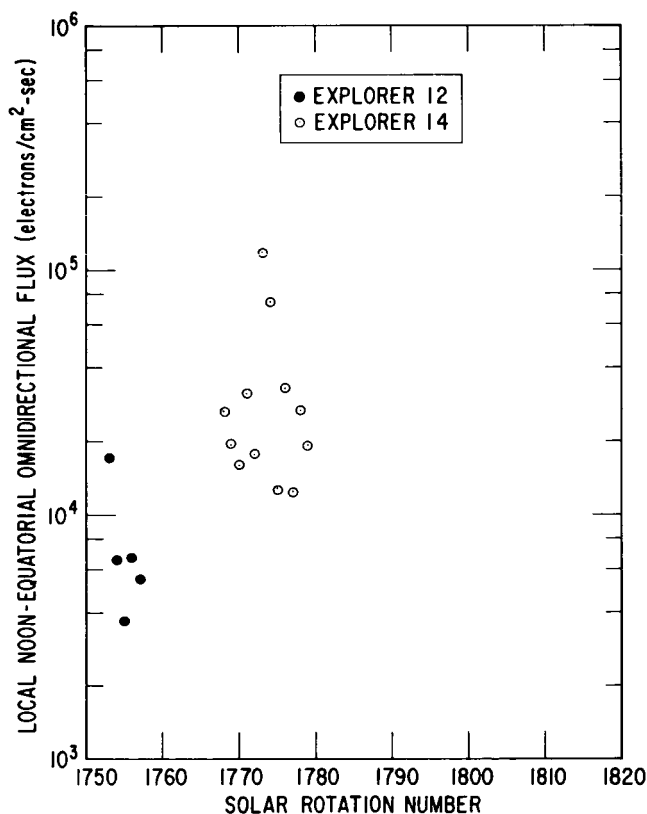


Figure 102—Average electron flux  $> 1.9$  MeV as a function of solar rotation number.

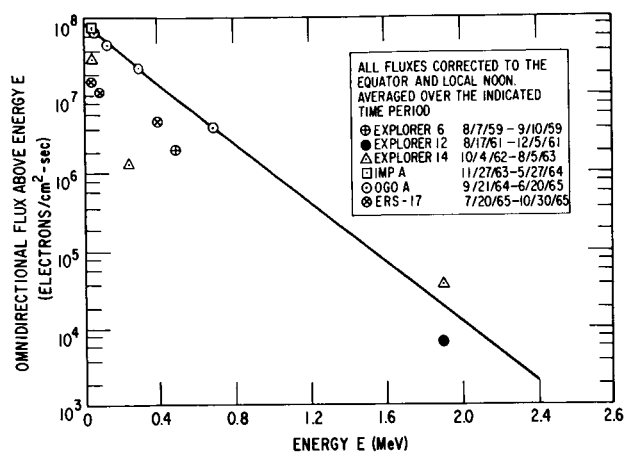


Figure 103—Comparison of all the satellite data used in making AE3 environment. The data are averaged over the time periods indicated in the legend.

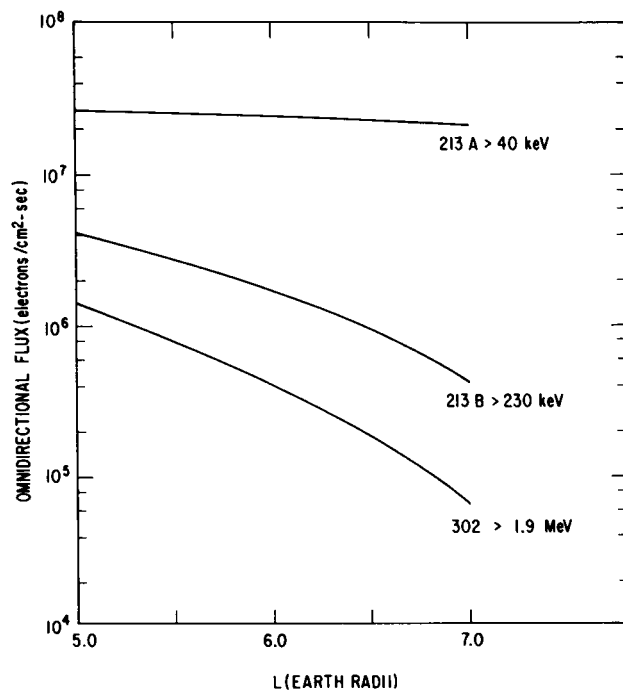


Figure 104—The variation of electron flux with L. The Explorer 14 data are used to illustrate the radial profile in the synchronous region. The data have been corrected to local noon and represent the median values over the lifetime of the satellite data.

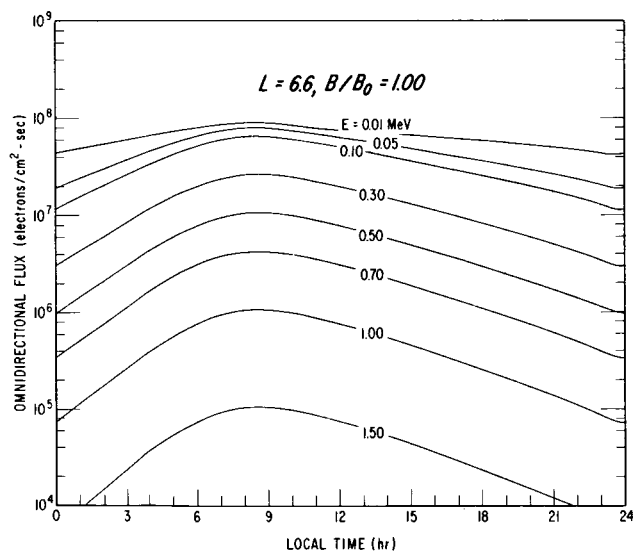


Figure 105—The local time variation of the AE3 electron environment at the geomagnetic equator - low and medium energies.

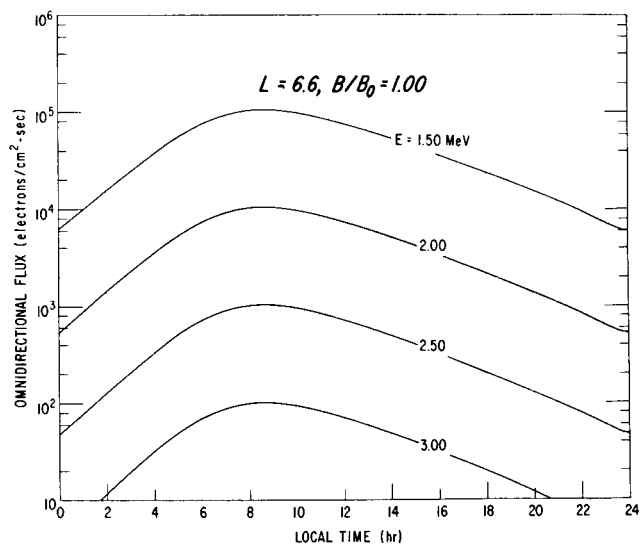


Figure 106—The local time variation of the AE3 electron environment at the geomagnetic equator - high energies.

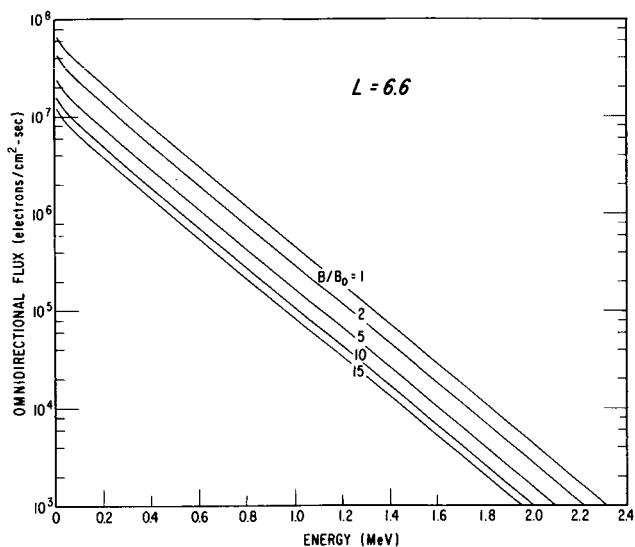


Figure 107—The integral spectrum of the AE3 electron environment averaged over local time.

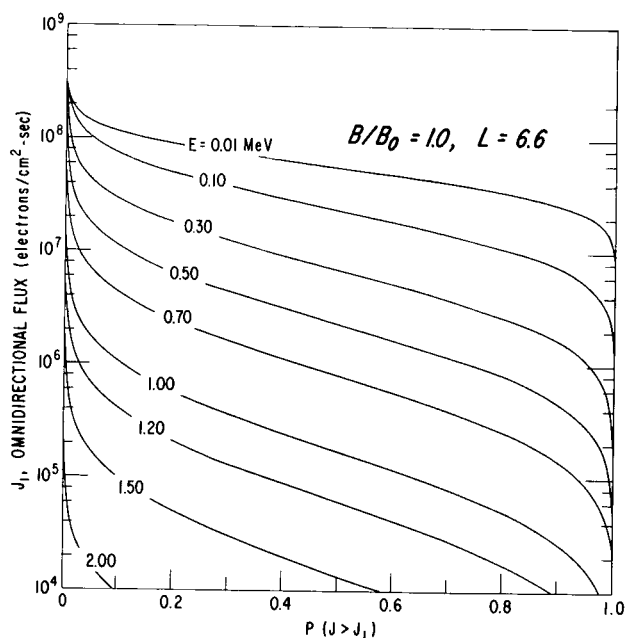


Figure 108—A statistical presentation of the AE3 electron environment averaged over local time - low and medium energies. See the text for the interpretation of these curves.

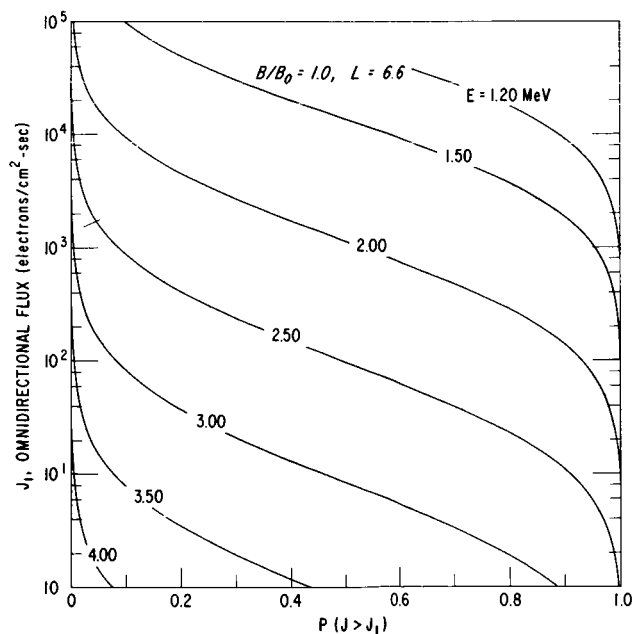


Figure 109—A statistical presentation of the AE3 electron environment averaged over local time - high energies. See the text for the interpretation of these curves.